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ECONOMY, ACADEMY, AND COMMUNITY COLLEGE FACULTY: A MISSION SURVEY

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ECONOMY, ACADEMY, AND COMMUNITY COLLEGE FACULTY: A MISSION SURVEY

by

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DEDICATION

I dedicate this endeavor to my family...

Mom and Dad, you have lived your values, including learning, curiosity, and drive. Thank you for teaching them to me. Christina, my “sister,” you prodded me to start this program. Thank you for being here. Steve, you met me in the middle and held me up with love and laughter. Thank you for seeing me through. Ryan, you laughed at my jokes and never questioned the mountain of papers. Thank you for accepting me. Finally, Evan, you will remember these days and "mommy's work." Thank you for your bright smile, your hugs, and your wise understanding. Thank you, also, for the pinky promise.

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ECONOMY, ACADEMY, AND COMMUNITY COLLEGE FACULTY: A MISSION SURVEY

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In the face of 21st century economic challenges, community colleges must contend with complex pressures on their mission. The dueling missions of academic transfer and workforce preparation must sustain and grow the American economy in a global market and simultaneously meet the promise to community college students—open access to quality higher education for all. In the midst of this challenging environment, community college faculty attitudes and awareness to mission challenges are often ignored. This study examined the macro-level effects of external pressures of the 21st century economy at the micro-level of full-time faculty at Texas community colleges.

The study design followed a post-positivist paradigm and sought generalizeable data about full-time faculty from Texas community colleges. Quantitative data from an online survey were analyzed to determine faculty awareness of and attitudes toward the community college mission.

The findings of the study show that faculty blur the boundaries of what traditionally have been considered workforce and academic roles. They are not well-informed about the range of pressures on the community college, but they are willing to integrate the academic and workforce mission and change in other ways to respond to challenges. They are generally supportive of the community college mission. Faculty teach with their students' long-term interests in mind, including career preparation and lifelong learning, more than they teach to prepare their students for immediate work in the community.

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CHAPTER ONE

INTRODUCTION TO THE STUDY

We contend that in the future there will be little difference, if any, between an educated person and a person educated to make significant contributions to the workforce. (Roueche & Roueche, 2000, p. 19)

This study reviews the responsiveness and exposure of community college faculty to the economic mission of the community college. This chapter contains (1) a presentation of the study context, (2) the statement of the problem, including the research questions, (3) an argument for the significance of the problem, (4) important definitions of key terms, (5) a discussion of the methodology, and (6) clarification of the research assumptions and delimitations.

Study Context

The community college mission is not solely to prepare students for transfer to four-year colleges, nor is it solely to train students for jobs in the labor market. Historically, community colleges have ventured to do both, but a tenuous balance between the two missions has created a lasting rift—both real and perceived—in the community college culture (Brint & Karabel, 1989; Dougherty, 1994; Grubb, 1999; Jacobs & Dougherty, 2006; Van Ast, 1999).

Many have heard the alarm rung by the Educational Testing Service report *America's Perfect Storm.* The storm metaphor warns of a higher education catastrophe caused by three major forces: (1) dismaying illiteracy and innumeracy rates in young adults, and alarming achievement gaps between socioeconomic groups; (2) a new economic landscape that challenges America's manufacturing identity and calls on higher education to meet the demand for professional knowledge workers; and (3) a projection of massive population growth, more than half of which will be from immigration—and from populations that will need literacy, numeracy, and workforce training (Educational Testing Service, 2005).

Furthermore, in the middle of this study, the United States entered a recession, the worst in three decades (Chandra, 2009). The Wall Street Journal reported,

> Rising unemployment rolls and a slumping economy are sending waves of students to community colleges in search of new job skills—precisely at a moment when state budget cuts are making the influx hard to handle. Enrollment increases are running at double or even triple their usual annual rate at community colleges across the country ("Weighing the two-year option.")

Much of the pressure felt from this confluence of forces is felt by community colleges, challenging traditional methods of teaching academic and occupational readiness. The need to develop sustainable, national economic growth creates a call to review the community college comprehensive mission. "Business as usual" is no longer acceptable. Workforce training requirements merge increasingly with academic education requirements, and the traditional boundaries of "academic transfer" versus "vocational/workforce preparation" have blurred.

Many fear that America is losing its global leadership position, and economic and educational evidence support the reality behind the fear. The American economy is no

longer an industrial, manufacturing powerhouse; it competes internationally in a nimble, creative, global, knowledge economy (Florida, 2006; Friedman, 2005; Toffler & Toffler, 2006).

The United States is no longer the world leader in educational attainment. Among younger workers (aged 25 to 34), those who represent America's future workforce, the United States ranks fifth in the world for a degreed workforce, and further loss of ground is anticipated (Kelly, 2005). In a recent survey, three out of four American manufacturing leaders selected a high-performance workforce—a workforce of educated people—as a necessity for economic success (National Association of Manufacturers, 2005).

> The story of how the "flat world" or global economy is reshaping the American marketplace has permeated the educational community. It has become increasingly clear to educators that in the 21st century the recipe for economic success depends in large part on the capacity of individuals to become "knowledge workers." (Workforce Strategy Center, 2007)

As a result, external pressures on community colleges accentuate the important economic function of the community college to building (and rebuilding) America's global position. Paradoxically, this economic function links in turn to academic achievement—preparing students for jobs in a creative, knowledge-driven workforce often means preparing students for associate's or bachelor's degrees (Jacobs & Dougherty, 2006; National Association of Manufacturers, 2005). This creates a mission transformation that calls for uniting workforce and academic functions within the college and rethinking responsibilities of each educator to prepare students for the world of work.

This mission transformation is challenged by demographic changes that increase the complexity of higher education's call to duty. The United States' minority populations of Hispanics, African-Americans, and Native Americans fall well below

international standards for educational attainment (Kelly, 2005): "Projected changes in the population by race/ethnicity from 2000 to 2020 will generate a substantial increase in the percentage of adults (aged 25 to 64) with less than a high school diploma and declines at each educational attainment level from the high school diploma to a graduate degree" (Kelly, 2005, p. 22). The result will be a less educated workforce, a decline in per capita income, and potentially a loss of global power.

Community college workforce programs have been the backbone of the United States' ability to educate its less prepared populations, but the traditional workforce mission of the college is troubled. Community colleges have struggled to find funding in Workforce Investment Act programs (Barringer, 2001). Not all of the training opportunities are flexible enough to meet the demands of today's economy and fulfill the needs of America's lowest income working class (King, 1999). Because manufacturing jobs are being outsourced internationally, fewer industries seek community colleges to train students in industrial labor fields; instead they turn to community colleges for more white-collar and technical training (Carnevale & Fry, 2002; Jacobs & Dougherty, 2006). This type of training requires a new paradigm for institutional organization and curriculum alignment (Boggs, 1993). Meanwhile, as community colleges struggle to accept this new paradigm without resistance from college constituencies, proprietary colleges such as University of Phoenix and DeVry compete for the same occupational students that community colleges expect to enroll (Davis & Botkin, 1994; Jacobs & Dougherty, 2006).

To prepare students for today's struggling economy, community colleges must face what is called the "U-shaped pattern of employment growth" (Jacobs & Dougherty,

2006, p. 60). Of the fastest-growing occupations, more than half are in the lowest income quintile, service industries such as construction, and only a few are in the highest income quintile, professional occupations; this fact challenges the community college mission of training students for middle-income, living-wage jobs that do not require baccalaureate attainment (Hecker, 2005; Jacobs & Dougherty, 2006). Community college workforce programs are challenged to choose between training more students for lower-paying employment that meets the needs of industry—or choosing training strategies that require more commitment to resources and time, and that will do more to serve the social mission of the college to improve lower class incomes over time.

"The best way to avoid such dilemmas would be for colleges to create a vertically and horizontally integrated system of workforce training that stretches from noncredit adult education through the baccalaureate" (Jacobs & Dougherty, 2006, p. 60). Grubb concurs: "Efforts to integrate academic and vocational education reduce the distance between academic and occupational purposes" (Grubb, 1999, p. 355).

Plans such as the Workforce Strategy Center's Career Pathways and the League for Innovation's College and Career Transitions Initiative are a couple of examples of new workforce strategy plans that are guided by this principle: "The career pathways approach helps community colleges better integrate their various mission areas of workforce development, academic credentialing and transfer preparation and remediation" (Workforce Strategy Center, 2007, p. 7).

Programs that encourage alignment rest at the heart of the community college mission. Drucker (1999) claimed that the United States holds a global advantage over other nations because of its unique community college system:

> The community college was actually *designed* (beginning in the 1920's) to educate technologists who have *both* the needed theoretical knowledge *and* the manual skill. On this, I am convinced, rests both the still huge productivity advantage of the American economy and the—so far unique—American ability to create, almost overnight, new and different industries. (Drucker, 1999, p. 151)

Despite this paradigm shift toward mission integration, debate continues to perpetuate the chasm between the transfer mission and workforce development, demonstrating how deeply ingrained the divide has been in the culture of higher education. At the heart of the paradox between mission functions has been the extent to which they emphasize and protect the mission of open access and opportunity for all. Both functions lay claim to the American Dream.

Statement of the Problem

This research studied the position and attitudes of community college faculty within the melee of 21st century external pressures. The pressures on the community college are economic primarily, with an emphasis on America's competitiveness within the global economy. Economic pressures are manifested in political and organizational pressures, and lead to challenges to community college faculty identity and presumed mission. However, little prior research has examined the impact of the 21st century community college mission on community college faculty; we have known little about the extent to which faculty understand "the larger picture."

Faculty are at the critical junction for student learning, but their tenuous position in this time of transformation receives little recognition. Community college leaders and researchers assume that community college faculty divide organizationally and philosophically by old notions of academic mission versus vocational mission. The perception is that faculty do not support the community college's economic function or

the integral relationship between economic and academic functions. Research shows that some instructors resent the "reinforcing shift in mission, in that the only real expansion of funds is coming from workforce development programs for employers, and such efforts can only distract colleges from their commitments to underprepared students and to teaching" (Grubb, 1999, p. 348). On the other hand, faculty adherence to "academic norms" prevents innovation that could ease the mission shift and aid student learning (Grubb, 1999, p. 351).

Research also shows that when administrators do believe faculty have positive morale about new programs, a gap may exist between administrative perceptions and the opinions shared in confidence with interviewers: "Faculty good will and support cannot be taken for granted" (Immerwahr, Friedman, & Ott, 2005, p. 12).

Research Questions

This research studied community college faculty opinions about the community college mission today. The specific research questions were as follows:

(1) What do community college faculty members consider the dominant mission of the community college?

(2) To what extent are community college faculty aware of the pressures on the college from external forces, including the global market and national and state policies to maintain economic competitiveness through higher education?

(3) What are faculty attitudes toward the college's responses to these pressures? Do faculty support organizational changes to respond to these challenges? Do faculty support uniting the academic and workforce missions?

Significance of the Study

Gleazer (1980) explains the value of studying awareness: "[Awareness] would seem to be a very strong concept. The organization is alive, alert, utilizing its senses to probe for meaning in environmental signals and cues. Awareness suggests broad rather than tunnel vision. It implies a positive, anticipatory stance" (p. 15-16).

The study has implications for leadership. Campus and community leaders may use the knowledge gained to develop item-specific professional development and discover new approaches to mission-building (Cohen & Brawer, 2003).

The study has abundant implications for faculty empowerment. Levin, Kater, & Wagoner (2006) believe faculty need to "extricate themselves from these conditions and what we see as their corporatized identity" (p. 13). Alfred and Carter (2000) recommend that faculty embrace the changing college mission and take responsibility for making change in the classroom—"the point of contact" with the student (p. 13).

Levin, Kater, and Wagoner (2006) precede this study with a seven-year qualitative research project examining faculty attitudes toward technology, corporate managerialism, and governance. The researchers presume that community colleges aggressively pursue a corporate ethos, and thus risk their educational mission. The authors deride community colleges as "nouveau" educational institutions: "part University of Phoenix, part Motorola University and Hamburger University, and part Open University, comprehensive community college, four-year state college, and even research university" (p. 18). The researchers' critical paradigm was satisfied with their findings: "Faculty are de-professionalized cogs in the corporate educational wheel or gear" (p. 137).

Their study asks important questions, and their findings lead them to state their opposition of current trends in community colleges: faculty bear the brunt of community college pressures and are embittered, embattled, and certainly not empowered. Levin, Kater, and Wagoner (2006) find that faculty are compromised and do not express the conflict they feel to the people in the college organization who could make a difference. Collins (2002) sees that the "corporate agenda" is a direct attempt to undermine shared governance. The belief is that faculty have become "disengaged" from the channels of active transformation (Kassing, 1998).

Research Paradigm

This proposed study examined similar topics about community college faculty through an examination of faculty attitudes about the community college mission; however, unlike other research on this topic, this study did not assume the critical stance that the power dynamic between administrators and faculty is hegemonic. The research combined economic and organizational theories with educational research about community colleges. The paradigm for this study assumed a post-positivist stance that when controlling for certain factors, faculty responses are generalizable to the point of revealing trends in faculty attitudes.

Certainly, the answers yielded by this examination of faculty attitudes might not be answers that administrators would like to hear. Edwards (1979) explained that for every act of managerial control, there is a an act of resistance from the people being controlled. Knowledge is powerful; it is destructive when it is withheld and constructive when it is shared. Employees dissatisfied with their working conditions tend to respond by voicing their criticism, neglecting their work, or leaving their work (Kassing, 1998).

Farrell (1983) found that voicing dissent is the only constructive response (cited in Kassing, 1998):

> Employees maintain a desire to voice concerns along with the expectations that their voice will be effective and their organizations will listen and attend to their concerns. Organizations, in turn, stand to learn from the critical information provided by employees who remain and voice concerns when dissatisfied rather than forfeiting such feedback when employees exit silently. (Kassing, 1998, p. 17)

This study enabled one constituency of the college to acknowledge its own voice within an anonymous collection of data. It enabled some healthy dissent. Different from "resistance," which is antagonistic, dissent can be a productive means of giving voice to a group, and educators should not shy away from such findings. Faculty lent their voices to the conversation through their responses to this study.

Knowing what faculty have to say should empower the other community college constituents. Unrelated disciplines have valuable information to share with each other about the life of the college, and beneficial collegial interaction should occur between the most unlikely participants.

> It is only when everyone understands how each operation contributes to the overall achievement of the college and has a role in assessing how well these activities contribute to overall achievement that the whole will become more than a sum of its parts. (Roueche, Ely, & Roueche, 2001, p. 113)

Definitions of Key Terms

Because the debate over community college mission has been highly charged, the language of the debate is highly charged, as well. The definitions offered here are an attempt to establish some shared language and to draw attention to the nuances of each term. Throughout this paper, some of them are used interchangeably.

Vocational. Contradictions abound over what is considered "vocational" education. Overall, the term is used to refer to job training, typically skill attainment, either at the high school or collegiate level.

Workforce. The dominant term used by federal legislation, "workforce" education has become a blanket term for any combination of occupational preparation programs, including vocational training, basic skill development, welfare-to-employment programs, career development including job placement, or technical training (King, 1999).

Occupational. Occupational training refers to career training for post-graduates or students employed in professional positions who need additional skill development to remain current in their fields or to earn promotion.

Academic. "Academic" courses are those that are required as core curriculum in associate's degrees and that transfer as the first 2-years of a college education to a 4-year school. This term is used interchangeably with "liberal arts" and "general education" (Cohen & Brawer, 1987).

Mission. The purpose, goals, and values of the community college, the mission is reified in an institutional mission statement but manifested in institutional culture.

Faculty. Any full-time instructor at a community college whose contract duties include classroom instruction.

Methodology

To answer research questions 1, 2, and 3, study data were gathered through a survey of full-time community college faculty members in Texas. The research was gathered in spring 2008. A sample size of n=167 was obtained. The research was conducted via a confidential, online, SSL-encrypted survey designed with Survey

Monkey, a respected surveying tool. Paper surveys were available as an alternate survey method, but faculty declined the paper survey option. Each research question was correlated to the survey questions, and a prototype was conducted to ensure statistical validity. Following the data collection, the researcher used descriptive statistics and ANOVA to analyze the survey responses in answer to the research questions.

Assumptions and Limitations

A limitation of this study was that only full-time teaching faculty were surveyed for their responses. Community colleges rely on part-time faculty for much of their instructional labor, 60 percent on average (Vaughan, 2006). A reason for excluding part-time faculty from the study was that full-time faculty assert the dominant cultural normative behavior within the department (Bayer & Braxton, 1998); part-time faculty have a different set of normative values that include fitting into or opposing the dominant culture of the full-time faculty.

Another limitation was that the study did not sample the population to control for economic and political similarities, except that it was limited to one state, Texas. This study assumed that Texas community colleges receive similar information about state and national politics and experience similar pressures from their communities.

This study assumed that respondents to the survey answered to the best of their abilities, with honesty and accuracy. It assumed that the survey was designed carefully and implemented fairly.

Summary

This study examined macro-level effects of external pressures of the 21st century economy—and related policy and organizational effects—at the micro-level of full-time

faculty. It sought awareness of faculty attitudes about these pressures and faculty's assumption of or denial of the need for community colleges to operationalize the global knowledge economy. The results are just one step toward greater understanding of one of the most misunderstood factors of the community college organization, yet one of the most powerful: the faculty at the front lines of teaching and reaching America's future.

CHAPTER TWO

REVIEW OF THE LITERATURE

The purpose of Chapter Two is to review research and literature on the trends of influence on the community college mission—highlighting new demands to meet the requirements of 21st century globalization—and to explore the position of community college faculty within the melee of these changes, as it is understood currently. The setting involves multiple elements that must be understood to conceptualize the faculty work environment.

The chapter first examines the dualistic history of the community college mission and defines elements of the trend toward a comprehensive college mission. It examines the high value placed on maintaining the democratic, open-access mission, which is championed by all sides of the debate. It then examines the external pressures on community colleges, beginning first with the complex global economic arena in which all higher education plays but in which community colleges have a unique niche. Political, financial, and organizational pressures respond to the economic tensions, affecting community college mission and operation. All community college stakeholders are affected by these pressures.

Finally, we come to the stakeholder group that is least analyzed in relationship to these pressures, the faculty, examining their identity and their working environment. The faculty remain the dominant subject of the research study.

The Community College Mission

History

Community colleges share a contradictory history in their mission to provide post-secondary education. At times, community colleges have resembled vocational and workforce institutions, dedicated to improving the economy and the immediate investment of human capital into the workforce. At other times, they have resembled transfer institutions dedicated to the liberal education of adults seeking academic challenges and the social capital of the baccalaureate degree.

Educators and lawmakers have debated the identity of community colleges since Joliet College opened its doors in 1901. Originally an extension of public education and considered grades 13 and 14, community colleges later became affiliated with higher education, governed under separate governing boards from the public schools (Alfred & Carter, 2000; Texas Association of Community Colleges, 2005). Community colleges found their niche in higher education as institutions that met the educational needs of their respective communities (Gleazer, 1980). They affirmed their connection to community development when they changed their names from "junior college" to "community college" in the 1960s (Jacobs & Dougherty, 2006). Today, we see a trend toward eliminating the word "community" altogether, in an apparent signal to remove stigma attached with being a "community college" and to send a message that the community college serves a larger constituency, including a national and international student body.

The divide between the academic/transfer mission and the vocational/workforce mission continues today: "Community colleges are still organized as though the real

distinction were between people who were going to work and those who were not" (Cohen & Brawer, 2003, p. 250). This occurs despite the fact that workforce preparation "cuts across specific organization units, and is present in credit and noncredit programs, career and technical areas, and contract training units" (Jacobs & Dougherty, 2006, p. 53).

Today's Academic Mission

Kasper (2002) asserts the academic mission is the primary function of community colleges. Academic associate's degrees dominate the community college arena, particularly liberal/general studies and humanities degrees, which accounted for 41 percent of associate's degrees in 1999-2000. Students likely obtain these associate's degrees to transfer for further study toward bachelor's degrees. Researchers have not always reported the same numbers, but they have found the same changing patterns in student enrollment and attainment of associate's degrees. Kasper (2002) says that in the 1990's, associate's degrees conferred increased by 21 percent. The National Center for Education Statistics (NCES) (2002) cites the following:

> While there appeared to be a small increase in the total number of adults who earned vocational associate's degrees, this difference was not statistically significant. However, the total number of adults who held academic associate's degrees increased between 1992 and 1996 by approximately an additional 1 million people. The percentage of adults seeking a vocational associate's degree declined somewhat since 1991, from about 14 to 11 percent, while the percentage seeking an academic associate's degree rose from 9 to 11 percent. Among the group of students who first began their postsecondary studies in 1989–90, those with academic majors were more likely than students with vocational majors to have completed at least one postsecondary credential 4 years later. However, a majority of both academic and vocational majors completed some type of degree or certificate within 4 years. (National Center for Education Statistics, 2002, p. 189)

In addition, many workforce programs include nursing, computer sciences, laboratory sciences, childcare, and other certificate and associate's degrees that can be gateways to later bachelor degree attainment. Increasing numbers of occupational programs are transferable to four-year institutions (Cohen & Brawer, 2003, p. 249). The academic mission now includes a broad scope of curriculum beyond the traditional liberal arts and advanced sciences.

Today's Occupational/Workforce Mission

However, enrollments in certificate programs are growing faster than enrollments in associate degree programs. In the 1990's, "longer-term certificates" increased by 22 percent; this growth appears moderate because certificates in areas such as engineering technologies decreased while certificates in computer/information sciences and health professions increased greatly (Kasper, 2002, p. 18). "Short-term certificates" grew by an astonishing 85 percent, particularly in computer-related fields and information sciences, which showed an increase in 631 percent (Kasper, 2002, p. 18). NCES (2002) did not account for certificates, categorizing certificate attainment within the label "non-degree."

In addition, associate degrees other than liberal arts/humanities, such as those in health professions, business management, and protective services, may have been "vocationally oriented and prepared students for specific careers" (Kasper, 2002, p. 19). Gray and Herr (1998) explain that two missions exist for workforce education, to encourage competitiveness of individuals in the labor force and to sustain or grow the international competitiveness of the economy.

> With the advent of the 21st century, vocational education in the United States is in transition. Historically, the purpose of vocational education has been to prepare students for entry-level jobs in occupations requiring less than a baccalaureate

> degree. Over the last 15 years, however, this purpose has shifted toward broader preparation that develops the academic, vocational, and technical skills of students in vocational education programs. This preparation involves integrating academic and vocational education, emphasizing all aspects of an industry, and implementing academic performance measures, among other reform efforts. Vocational education policy now also encourages high school students to continue their studies at the postsecondary level, and 2-year postsecondary students to pursue 4-year credentials through various articulation or "techprep" arrangements. The traditional focus of vocational education is giving way to a broader purpose— one that includes greater emphasis on academic preparation and provides a wider range of career choices. (National Center for Education Statistics, 2002, p. iii)

The Comprehensive College Mission

As the data above show, economic factors have become a part of the educational rhetoric of both academic and workforce "sides" of higher education, such that career preparation belongs to all areas of academe, not solely workforce programs. "The argument can be made that all contemporary education is vocational, since it is designed for people who will one day work" (Cohen & Brawer, 2003, p. 248). In addition, previous workforce or industry arenas are claiming academic status, as seen in the enormous rise of proprietary/for-profit colleges and universities within corporate organizations such as Motorola University (Davis & Botkin, 1994).

Are community colleges ready to unite the academic and workforce mission? As the NCES quote claims above, integration may be occurring already in workforce programs. However, little data exist that show academic programs are integrating workforce or economic strategies in their curricula. Clearly, the mission has become more complicated than the dualistic relationship between transfer mission and vocational mission. It has become "comprehensive," offering multiple functions to meet the needs of its students (Bailey & Morest, 2004; Baker, 1999).

Cohen and Brawer (2003) identify five community college mission functions: (1) academic transfer, (2) vocational-technical education, (3) continuing education, (4) developmental education, and (5) community service. Bailey and Morest (2004) prefer to view the comprehensive mission via its organization, examining community college programs as core, vertical, and horizontal activities. Baker (1999) says, "Today in every mission of comprehensive community colleges is the idea of creating wealth at the individual, local, regional, and national levels through job skills in the short term and lifetime education in the long term" (p. 35). More and more, local schools and communities are creating wealth at the global level, as well (Moss Kanter, 1995).

Dougherty (1994) takes a negative view of comprehensive missions, claiming that "in trying to be a jack-of-all trades, the community college often has become a master of none" (p. 248). Bailey and Morest (2004) review extensive criticism of the comprehensive mission, claiming, "During the past two decades academics and researchers have almost universally condemned the comprehensive model" (p. 1). In contrast to Bailey and Morest's findings, however, many researchers champion the comprehensive community college mission as simultaneously contradictory and creative; an important means for improving communities; and an opportunity for hope to the underserved populations who would not have options otherwise (Alfred & Carter, 2000; Griffith & Connor, 1994; Roueche, Tabor, & Roueche, 1995).

Mission by Region

A community college's location significantly influences its mission. Kasper (2002) explains that rural community colleges offer more career training than suburban or urban colleges because career training is not available elsewhere within the community.

Further, workforce offerings often meet the needs of smaller, growing communities seeking to increase local economic development. Research by Kenney-Wallace, Cox, Lu, and Slate (2006) offers a more provocative suggestion for the evidence that rural colleges commit to workforce education more than urban and suburban colleges do:

> The third statistically different theme was the theme of Vocational/technical needs that was present in 72.7% of the mission statements of rural sites, and only 50% of the mission statements of suburban and urban community colleges. Possibly the wording has been removed from the mission statements of the suburban and urban colleges because it has connotations of an inferior type of education. (p. 21)

Paradoxically, the same research finds that rural community colleges also use the terms "transfer" and "comprehensive" more frequently than urban and suburban colleges. In fact, in one survey, "transfer" occurred in only 25 percent of urban community college mission statements (Kenney-Wallace, Cox, Lu, & Slate, 2006, p. 19). The authors surmise that

> Because community colleges are often the only postsecondary college in rural areas, the comprehensive mission has survived there the longest. Suburban and urban areas have abandoned comprehensive services to develop technical programs, as Ayers (2002) recommended. …. These careers are often highly specialized and require high tech equipment; they are not "vocational" according to the historical use of the word. (p. 20-21)

According to this research, urban and suburban colleges now favor workforce language because the comprehensive mission is outdated. Yet the workforce mission they champion is sophisticated beyond skills training and likely melds with academic skills. These colleges may be responding to negative community opinions about comprehensiveness and emphasizing their mission flexibility because four-year institutions in the area may serve the academic transfer mission already.

The Community College Democratic Mission

The cases both for and against workforce education have historic roots in the quest for the American dream. Ironically, the American university system was criticized for catering to corporate needs. Aronowitz (2000) gives several examples of complaints in the early 20th century:

> Writing in 1909, Chapman declared, "The men who stand for education and scholarship have the ideals of business men. They are in truth business men. The men who control [universities] today are very little else than business men." Veblen "detected the hand of business control dominating every aspect of the modern university," including the "prominence given to intercollegiate athletics" and "vocational instruction." (p. 17)

While this debate ensued over baccalaureate granting institutions, community colleges were developing their own identities. Early proponents of vocational education believed that providing "terminal" degrees for students who were unlikely to finish a bachelor's degree would provide those students an opportunity for success that would otherwise elude them; however, students were unwilling to be diverted away from their aspirations of four-year degree completion. Increased marketing and unwavering support for vocational education by community leaders and the colleges themselves began a conversion (Brint & Karabel, 1989).

Moore (2006) calls the vocational emphasis an attempt at "tracking" and considers it "deleterious," "degrading," and "discriminating" (p. 133)—a means of maintaining a lower academic class and preventing minority students from improving their social status and achieving their educational and occupational dreams. Other critics believe that the vocational mission does not emphasize lifelong learning (Gleazer, 2001; Hanson, 2006). Lifelong learning is a means for achieving greater results in open access

education because it establishes a curiosity in students that extends beyond workforce training and into the pursuit of learning for the joy of it.

McGrath and Spear (1991) explain that the transformation to "community" of the 1960's and 1970's—which heralded the trend toward increasing workforce programs—cost community colleges some credibility in their service to the democratic mission. College leadership expected that the academic function would stay strong as they focused on workforce programs. However, the academic function relied heavily on university curriculum and organization while professors taught using high school teaching methods. This contradictory combination delayed community colleges from examining the practices that would be most effective for promoting academic education among nontraditional students.

Levin, Kater, and Wagoner (2006) assert that current educational trends toward workforce development have a negative effect on social values and the community college's social mission. They lament that a "neo-liberal" identity dominates higher education, "an ideological complement to the mechanics of globalization" (p. 26). McGrath and Spear (1991) offer a strong admonition of their own:

> If community colleges are to fulfill their responsibilities as nontraditional institutions, for nontraditional students whose aspirations they profit by and whose dreams they encourage, then ways must be found to be much more effective in the academic preparation of students. For, despite the characteristic penumbra of vocational, remedial, and social service programs, if community colleges are to be thought part of higher education at all, then the academic function must largely constitute their identity. If they are torn by a crisis of identity, by a speaking with two voices, then that is because of a fundamental distortion of the academic function, a weakening of the practices of academic life. (p. 11)

The debate about ownership of the best educational means to elevate Americans to their highest potential is a debate about the space in which the highest cognition, creativity, excellence, and good citizenship are integrated. More and more, this cannot be achieved in only the academic function without attention to the external environment that drives the practical function of education. Higher education is critical to achieve a quality standard of living that otherwise would bypass the underserved and minority populations of our nation and provide critical preparation to contribute to the global knowledge economy (Mathis, 2006).

The Community College Mission and the American Economy

The Economic Reality

Today, much research and discussion contributes to the argument that higher education is essential for economic competition, and the United States' educated workforce is not keeping up with the economy's requirements. This is causing worry that the United States is losing its educational status and global economic power.

Griffith and Connor (1994) call the American economy a "moving target" (p. 78). Fifteen years ago, most economists and educators understood that many low-skill jobs were being automated or moved overseas, but today, even high-skill jobs are leaving America as countries such as India and China increase the necessary education for high-skill engineering and production work (Florida, 2006; Friedman, 2005; Kassing, 1998; The *New* Commission on the Skills of the American Workforce, 2007; Toffler & Toffler, 2006). Traditionally, America has attracted top talent from overseas to fill the needs of its high-skill, high-creativity labor market. Today, other nations compete to recruit those

intellectual immigrants to their companies instead of American companies, and America's top talent is often recruited, as well (Florida, 2006).

Drucker (1999) says that workers today are valued for their knowledge more than their productivity. Toffler and Toffler (2006) explain,

> We are drastically altering the ways in which we create and store knowledge, the speed at which it decays, how we judge its validity, the tools we use to make more of it, the languages in which it is expressed, the degree of specialization and abstraction in which it is organized, the analogies we rely on, the amount that is quantified and the media that disseminate it. … Moreover, all these dimensions of knowledge are changing simultaneously, at speeds never before encountered—and opening up countless new ways to create wealth. (p. 105)

Friedman (2005) says that successful American companies will be innovative and creative, staying a step ahead of the increasingly competitive global environment. Florida (2002) explains, "Human creativity is the ultimate economic resource. The ability to come up with new ideas and better ways of doing things is ultimately what raises productivity and thus living standards" (p. xiii).

Many creative jobs exist in what are called the STEM subjects: science, technology, engineering, and math. The American economy remains a leader in these subjects, but its grip is slipping (Friedman, 2005).

> Sectors most likely to grow and create jobs are those with knowledge-intensive companies that employ highly talented and creative workers. … Firms most likely to succeed in threatened sectors in the United States are those that have advantages that are difficult to replicate. (Rosenfeld, 2006, p. 4)

The rules of the American and global economy are changing more quickly than we can educate or innovate to hold our position as a leading global economic power.

The Organisation for Economic Co-operation and Development (OECD) offers credence to valuing education's economic contribution:

> At the OECD, we are permanently trying to identify and quantify the factors that determine economic growth. We found that education was a more important driver of growth than business investment, population growth, or even price stability. … Our estimates show that adding one extra year to the average years of schooling increases GDP per capita by 4 to 6 per cent. Two main paths of transmission can explain this result: First, education builds human capital and enables workers to be more productive. Second, education increases countries' capacity to innovate—an indispensable prerequisite for growth and competitiveness in today's global knowledge economy. (Gurria, 2007)

The National Center for Education Statistics is attentive of these changes, recognizing a decline in manufacturing and "economic restructuring" that emphasizes the service industry and knowledge-based fields (National Center for Education Statistics, 2002, p. 19).

> As a result, major industrialized economies are becoming "knowledge-based," where the creation, distribution, and use of information and knowledge—including both technology and human capital—are becoming increasingly important. According to some calculations, more than half of the total gross domestic product in the major industrialized economies is now knowledgebased, including industries such as telecommunications, computers, software, pharmaceuticals, education, and television.[25] High-technology industries have almost doubled their share of manufacturing output over the past two decades to around 25 percent, and knowledge-intensive services are growing even faster.[26] By one reckoning, "knowledge workers," from brain surgeons to journalists, account for 8 out of every 10 new jobs.[27] (National Center for Education Statistics, 2002, p. 27)

The highest rate of growth in the United States' employment is in "service occupations" or "service-producing industries." The definition of "service occupation" is broad, including fields that are knowledge-based and creative.

> The services industry incorporates a wide variety of activities, such as health care, advertising, computer and data processing services, personnel supply, private education, social services, legal services, management and public relations, engineering and architectural services, accounting and recreation. The services industry includes establishments as diverse as Microsoft™ and 24-Hour Fitness. (National Center for Education Statistics, 2002, pp. 15-16)

The United States' educational climate does not fare well in contrast to global education. A comparison of score data from two international benchmarking tests in public schools offers a picture of United States educational competitiveness with the world [Appendix A]. The Program for International Student Assessment (PISA) tests mathematical, scientific, and language literacy in volunteer countries across the world:

> *Literacy* Rather than examine mastery of specific school curricula, PISA looks at students' ability to apply knowledge and skills in key subject areas and to analyse, reason and communicate effectively as they examine, interpret and solve problems.
>
> *Lifelong learning* Students cannot learn everything they need to know in school. In order to be effective lifelong learners, young people need not only knowledge and skills, but also an awareness of why and how they learn. PISA both measures student performance in reading, mathematics and science literacy and also asks students about their motivations, beliefs about themselves and learning strategies. (Organisation for Economic Cooperation and Development, 2007, p. 1)

The data demonstrate that in 2003, the United States' 15-year olds tested below the average scores of twenty nations in the PISA exam and above five only. Further analysis of the 2003 PISA scores explains that one-third of second-generation immigrant students in Austria, Belgium, Denmark, Germany, and the United States perform below benchmark levels in mathematical skills, despite having had their entire education in the systems of their host countries and despite testing high in their motivation to learn mathematical skills (Organisation for Economic Cooperation and Development, 2006, May 15). These 2003 students are college-age today.

The State of Texas demographic shifts projected throughout the 21st century are evidence that economics and education are integral to local social and economic success. According to 2002 data by the State Comptroller's Office, community college's economic impact on Texas was $3,642,000,000 per year (Strayhorn, 2005). A different

survey considered more factors that are less often measured, and determined that community colleges contribute $113.5 billion per year into the Texas economy, equaling about 351,530 jobs (Texas Higher Education Coordinating Board, 2004).

More than 50,000 students were enrolled in Texas community colleges than in four-year colleges and universities; and the growth of community college enrollments is projected to continue with an estimate of 172,000 more students enrolled in community colleges than in colleges and universities in the year 2040: 848,868—double the population enrolled in Texas community colleges today [Appendix B] (Murdock, et al., 2002).

In 2040, more than 75 percent of the Texas community college population will be non-Anglo, an increase from 45 percent in 2000 (Murdock et al., 2002). Concurrent with these changes, the number of Anglos in executive positions will be disproportionately high in contrast with the number of Hispanics in executive positions, and Hispanics will account for more than 60 percent of the state's unemployed (Murdock, et al. 2002).

The areas of industry that have the most labor will be the service and manufacturing/production areas; the technological, professional, and executive professions will lose ground in their qualified labor [Appendix C]. These are the fields that will need funding the most for the state to remain economically compatible. It is unclear if the "service areas" in the State demographic data include the creative knowledge-driven work that NCES includes in its definition of service occupations.

Overall, the Texas labor force will earn less, and the need for workforce training will increase by 170.6 percent, when the population grown is only 142.6 percent and growth in the labor force is only 136.7 percent [Appendix D]. "If differentials in the

socioeconomic characteristics of the labor force do not change, the future labor force of Texas will be less well educated, less skilled, earn lower salaries and wages, and thus be in greater need of labor force training (with substantial associated costs)" (Murdock, 2002, p. 47).

Moss Kanter (1995) depicts solutions by local communities to similar problems. "[Success] will come to those cities, states, and regions that do the best job of linking the businesses that operate within them to the global economy" (Moss Kanter, 1995, p. 151). She outlines three criteria for success: concepts, competence, and connections. In addition,

> Places can—and do—establish linkages to world-class companies by investing and specializing in capabilities that connect their local populations to the global economy in one of three ways: as thinkers, makers, or traders. … Spartanburg and Greenville, South Carolina, are good examples of world-class makers: they have an exceptional blue-collar workforce that has attracted more than 200 companies from many countries. (p. 153).

Greenville Technical College, a comprehensive two-year college in the area, is credited with developing and training the highly competent corps of workers that is a magnet to bring foreign-owned companies to the area and glue that keeps them investing in the community.

The Community College Position

These realities point to three significant issues that must be dealt with by American educational institutions: (1) encouraging immigrants to obtain their education in the United States and stay to apply their talents to American companies—an issue that is challenged by complex security issues post 9/11; (2) educating American students with global fluency; (3) educating underprivileged American citizens—very often

minorities—and encouraging them to earn post-secondary degrees in high-wage disciplines; (4) developing, nurturing, and encouraging the creative, knowledge-driven subjects in post-higher education.

To date, higher education does not demonstrate success in these four areas. Many international students are being recruited by countries other than the U.S. (Community College Week, 2007). Community colleges want to compete with U.S. universities for those foreign students who do choose to come to the United States (Schachter, 2007). Furthermore, institutions generally have done a poor job of providing undergraduates with international or intercultural literacy (Dean, 2003).

Issues of economic awareness, international awareness, diversity, and class-consciousness all influence our education system, for better or for worse, depending upon how we face them. In order to serve a multicultural demographic and simultaneously fill jobs in America's economy, community colleges must increase the number of minority students receiving and completing post-secondary education, especially in science, technology, engineering, and math subjects, subjects that are least accessible to at-risk students (Galuska, 2007)

Today, most middle-class jobs require at least some college education, preferably an associate's degree (Carnevale, 2000). Workforce programs remain the tool by which American workers retrain themselves as the economy shifts (Nora, 2000). Workers turn to the community college to retrain in response to economic downturns in their local economy or develop new skills to meet the needs of rapidly changing technological industries. In fact,

- Students who pursue their vocational studies at a community college have been shown to have better outcomes than students attending other types of postsecondary institutions; and
- Postsecondary students who complete a vocational program and obtain a degree or certificate have been shown to have better outcomes than those who do not complete or obtain certification. (National Center for Education Statistics, 2002, p. 29)

Therefore, community colleges' economic responsiveness is vital to the development of the American knowledge worker. King (1999) notes that "market-like mechanisms have arrived in workforce policy" (p. 71), and in the future, workforce programs and policies will "feature an even more prominent role for market mechanisms and market-oriented approaches" (p. 70).

Carnevale (2000) sees five significant contributions of community colleges that will lead to an internationally competitive 21st century economy:

- The minimum qualification for access to jobs with a future
- The stepping stone to a bachelor's and graduate education
- The pivotal educational institution in the nation's job training and retraining system
- The primary educational resource for the least advantaged, such as dropouts, the educationally disadvantaged, immigrants, and dislocated workers who need a second chance to learn
- The first chance at American education for the surging immigrant population. (p. 3)

However, as The *New* [sic] Commission on the Skills of the American Workforce (2007) explains, "[Our] education and training systems were built for another era" (p. 8). Failures in the current educational system have caused a "quiet crisis" due in part because our educational system—based upon a mass-production economy and local funding that educated people to the level their community could afford—was satisfied with "the

bread-and-butter basics" (Friedman, 2005). Today's comprehensive community colleges are not the immediate solution to these problems. Bailey and Morest (2004) find that comprehensive colleges need to "improve coordination and integration of [their] apparently disparate missions" in order to offer the best education in the best interest of the students (p. 2). "Community colleges operate in a world of countervailing pressures and they will need to organize in contradictory ways to respond to these pressures" (Alfred & Carter, 2000). In other words, despite the energetic efforts of community college leaders, more work needs to be done.

Twenty years ago, Roueche and Baker (1987) explained that overlap between the career and transfer programs complicated the community college identity, and this conflict was an inevitable manifestation of the community college response to open access. Today, the integration of traditionally discrete programs in community colleges is a significant opportunity to serve community colleges' multiple constituents in an increasingly complex economy:

> With the advent of the information age in the late decades of the twentieth century, the linkage between academic and occupational education has taken on much greater importance. … Today, and into the foreseeable future, most occupations will require levels of education well beyond previous demands, and the connections between traditional areas of academic knowledge and occupational knowledge, skills, and attitudes will be critically important. (Edling & Loring, 1996, p. 1)

In other words, distinctions between "workforce" and "academic" programming should be long out of date. Cohen and Brawer (2003) explain that the argument that workforce education is a track leading away from the baccalaureate is "oversimplified" and "contributes to the confusion of curricular content with student intentions" (p. 245). Workforce programs have important social community functions. They are not solely the

domain of the lower classes. Nor do career program students demonstrate behavior that indicates they are isolated from further studies; many transfer to baccalaureate degrees. The workforce mission and the academic mission are both means to fulfill the democratic mission:

> [It] is a primary responsibility of community college educators to help Americans – especially new Americans – find their way, to promote upward mobility, to discourage the constant reproduction of economic, political, and cultural elites, and to reinvigorate our society and its institutions with fresh and diverse talents and perspectives. (Carnevale, 2000, p. 22)

Policy Influences on Community College Mission

Historically, the community college has leveraged influence politically and has been influenced in return because of its workforce mission—its most recognizable niche in the education hierarchy. It demonstrated itself to be indispensable to the economy and therefore wielded some legislative influence (Brint & Karabel, 1989; Dougherty, 1994; Jacobs & Dougherty, 2006). Since the 1960's, the American Association of Community Colleges has endorsed workforce education as the primary mission of community colleges (Brint & Karabel, 1989) and encourages community colleges to make this mission known to their legislators (Jacobs & Dougherty, 2006).

External forces drive the college (Baker, 1999; Harcleroad & Eaton, 2005). Community colleges engage in increased relationships with local, state, national, and international businesses plus increased control by the state (Roueche, Tabor, & Roueche, 1995). Trustees and college presidents are aware of this and drive the community college programming to sustain these relationships and solidify their colleges' financial and political security (Brown & Burke, 2007; Harcleroad & Eaton, 2005; Roueche & Jones, 2005).

> The community college has been shaped by a wide variety of groups, including not just private interest groups such as business and students, but also government officials, ranging from presidents to local educators. In fact, pursuing values and interests of their own, these government officials have put their own unique stamp on the community college. (Dougherty, 1994, p. 8)

One major law that has transformed community college education is the Workforce Investment Act (WIA). Passed in 1998, the act's purpose was "to consolidate, coordinate, and improve employment, training, literacy, and vocational rehabilitation programs in the United States" ("The Workforce Investment Act", 1998, p. 1). While not reserved solely for community colleges, community colleges have embraced WIA and are increasing their participation in WIA programs. To meet the requirements of the act, many community colleges have partnered with community businesses, refined curriculum and their curriculum review processes, and reorganized their workforce programs—including times and method of course delivery (Fowler & Visher, 2007).

Ten years after WIA, the United States' Secretary of Education, Margaret Spellings, commissioned a powerfully influential report—*A Test of Leadership: Charting the Future of U.S. Higher Education*—yielding both positive and negative reactions by educational institutions. The commissioned report has been under fire for its impracticality and lack of vision. Regardless of the response by educators and the solid opposition to the report, the national rhetoric demonstrates how the emphasis on higher education's economic responsiveness has become a national priority.

The language in the report's preamble proves the national emphasis on comprehensive higher education. The commission is concerned with education's influence on American economic competitiveness: "But a lot of other countries … are now educating more of their citizens to more advanced levels than we are. Worse, they

are passing us by at a time when education is more important to our collective prosperity than ever" (U.S. Department of Higher Education, 2006, p. vii). The report further emphasizes the argument that knowledge matters in our economy: "Unacceptable numbers of college graduates enter the workforce without the skills employers say they need in an economy where, as the truism holds correctly, knowledge matters more than ever" (p. vii). Further, the report challenges the conception that an acceptable level of knowledge must be attained through the baccalaureate: "We acknowledge that not everyone needs to go to college. But everyone needs a postsecondary education. Indeed, we have seen ample evidence that some form of postsecondary instruction is increasingly vital to an individual's economic security" (p. vii). This last opinion appears paradoxical—where else does one attain postsecondary education without attending college? The statement supports the increase of community college workforce certificate programs, which the commission may not see as "college" per se, but which provide economic success tools to the student workers who enroll in them. It also supports the increase of for-profit education, increasing the pressure on community colleges to prove their competitiveness and their superiority as non-profit educators (Davis & Botkin, 1994; Jacobs & Dougherty, 2006; Roueche & Jones, 2005).

Overall, the commission's goals call for adaptability, high-quality instruction, efficiency, accountability, and affordability: "We want a world-class higher-education system that creates new knowledge, contributes to economic prosperity and global competitiveness, and empowers citizens" (U.S. Department of Higher Education, 2006, p. viii). This appears to be a tall order, but it captures the comprehensive mission to which community colleges aspire.

In addition to national policy, state-level policy also demonstrates recent attention to the higher education mission. Like *A Test of Leadership*, the Texas *Closing the Gaps* plan uses language that unites the higher education academic mission, the occupational mission, and the democratic cause of opportunity and access for all. *Closing the Gaps* states this vision:

> Every Texan educated to the level necessary to achieve his or her dreams; no one is left behind, and each can pursue higher education; colleges and universities focus on the recruitment and success of students while defining their own paths to excellence; education is of high quality throughout; and all levels of education, the business community and the public are constant partners in recruiting and preparing students and faculty who will meet the state's workforce and research needs. (The Texas Higher Education Coordinating Board, 2000, p. 6)

As another example, in Wyoming, a gubernatorial commission is calling for state funding of over $60 million dollars to contribute to workforce development over the next four years. A part of the plan includes strategic planning for workforce education in community colleges ("In Brief", 2007). These are just two examples out of many.

Many new policy items relate to increase in funding for the STEM subjects. Research and science education were predicted to be a major issue in the 2008 presidential election (Fischer, 2007), and the prediction was accurate. The National Science Foundation, the American Association of Community Colleges, and the American Mathematical Association of Two-Year Colleges convened in a summit to study increasing community college faculty in the STEM subjects so that community colleges can meet the demand that is expected to become a flood (Patton, 2006).

Funding Influences on Community College Mission

Funding patterns influence the community college mission. Critics of the workforce mission believe that institutions of higher learning necessarily select the

workforce mission for economic survival (Levin, Kater, & Wagoner, 2006). WIA funding is just one example. In another example, the Wyoming recommendation discussed above, the proposed $60 million funding for workforce preparation would be distributed only through community college formula funding and overseen only by the appropriate community college department (Governor's Community College Study Commission, 2007, July 25).

In August 2007, the Employment and Training Administration (ETA) offered another $125 million in community-training grant funds (U.S. Department of Labor Employment and Training Administration, 2007a). These funds support a presidential plan to increase funds in "high growth career paths" such as health care, information technology, and advanced manufacturing (U.S. Department of Labor Employment and Training Administration, 2007b). Examples of colleges receiving the money this year or since 2004, and their plans for the money, include (1) $863,000 to Lake Land College (IL) to expand nursing education and hire new faculty, (2) $2.1 million to Anne Arundel Community College (MD) for transportation industry training, and (3) $1.9 million to Alpena Community College (MI) for the Concrete Opportunities and Solutions program, the only program in the nation to offer an Associate of Applied Science in concrete technology. Other industry training and education programs include aerospace, biotechnology, energy, construction, automotive, forestry, and more (Pekow, 2007, p. 7).

The financial dynamics influence many community college program choices:

> New programs have the potential to create new constituencies that in turn generate the state-and local-level political support needed to maintain the flow of tax revenues. … [A] college must not only provide a valuable service to its 'customers'—current and potential students—but must also appeal to politicians,

> taxpayers, and influential constituencies such as business leaders and community groups. (Bailey & Morest, 2004, p. 25)

Clearly, community colleges do have financial incentives to weigh their offerings heavily toward economic preparation, and a significant amount of money is at stake. Flynn (2007) believes that community colleges must find new ways to fund themselves so that they can overcome the conflict they face when trying to implement innovative programming when being funded for seat time or academic credit.

Organizational Challenges of the Community College Mission

The political decisions about how to dole out these incentives influence community college organization. WIA funding, channeled toward "job training," is separate from Perkins Grant funding, which offers more funding for "work-related education" (King, 1999, p. 54). In addition to this separation, "The failure to block-grant workforce services or to consolidate workforce programs suggests that federal reformers have made little progress addressing the broad efficiency concerns raised over the past decade. Workforce services continue to be characterized by considerable fragmentation" (King, 1999, p. 68). Services are duplicated, and authority is kept separate from program to program.

"All campus stakeholders must have a clear understanding of terminology, responsibilities and turf before a serious commitment to developing new revenue streams can begin" (Flynn, 2007, p. 5). Flynn (2007) champions a change in focus from internal to external: "The most important factor in providing economic value to the community is viewing employers—not students— as the college's true customers" (p. 5).

Theories of organizational control are applicable to common campus organizational structures, or what Flynn calls "turf." Tompkins and Cheney (1985) introduced a "post-bureaucratic type of control" they called "concertive" control:

> …one that stresses teamwork and coordination at all stages of production (see, for example, Reich, 1983), flexibility and innovation (see, for example, Reich, 1983), "flat" hierarchy (see, for example, Mintzberg, 1979), blurring of line and staff distinctions (see, for example, Mintzberg, 1979), intense face-to-face interaction concerning nonroutine decisions (see, for example, Peters and Waterman, 1982), and relative value consensus (see, for example, Ouchi, 1980; Peters and Waterman, 1982). In the concertive organization, the explicit written rules and regulations are largely replaced by the common understanding of values, objectives, and means of achievement, along with a deep appreciation for the organization's "mission." (Tompkins & Cheney, 1985, p. 184)

Members of an organization are "surrounded by a myriad of values and goals tied to an array of organizational and extra-organizational targets" (p. 191). How well the members identify with the organization's mission will determine if they will "choose the alternative that best promotes the perceived interests of that organization" (p. 194).

Diamond (2002) explains an overt strategy for leadership to shape the college organization's success by embedding the mission into faculty identity:

> As an academic leader, it is one of your most important responsibilities to ensure that the passion and energy of your faculty are invested in areas of priority for your institution. You can do this most directly by carefully structuring the faculty reward system to reinforce your institutional mission and vision. (Diamond, 2002, p. 272)

Patterns of strategic mission identification and concertive control are "implicit and explicit" (Tompkins & Cheney, 1985, p. 195), and not always deliberate, as in Diamond's suggestion. Further, it is important to note that control does not necessarily engender dissent, and dissent does not necessarily engender conflict (Kassing, 1998, p. 10).

Locke and Guglielmino (2006) identify four community college subculture groups that influence change initiatives: (1) Administration, (2) Senior faculty (10+ years experience at the college), (3) Junior faculty (Less than 10 years of experience), and (4) Support staff. Subculture differences can facilitate or hinder change. Locke and Guglielmino (2006) cite Kotter (2006): "The best way to anchor change into the organization is to attach desired changes in assumptions and values to existing cultural assumptions" (p. 124).

Complex environments require the examination of multiple forces within them. Johannessen (2007) explains that individual identity and everyday interaction are more valuable for meaning-making and change-creating than strategic planning: "When people interact it is improbable that one person's plan or intention would emerge as the long-term reality of it all" (p. 11). Change does not come from external sources, but rather from within. The individual may *react* to external forces, but given the complexity of individual experience, this reaction is not as simple as cause and effect management. "Persons recruited into formal positions as leaders are given special opportunities to influence social patterns of interaction and identities, but they are always dependent upon others" (Johannessen, 2007, p. 15).

Legitimation and Practice of Mission within the Community College

Community College Administrators and Leaders

Community college presidents promote the important relationship between the community college and the economy. Blackboard (2005) found that leaders report worrying extensively about both revenue generation and globalization. These leaders work hard to make economics and globalization a part of the college mission

(Blackboard, 2005; Brand, 1997; Roueche & Jones, 2005). They understand that community colleges compete nationally for workforce development in specific industries, that policies shape community college economic focus, and, furthermore, that faculty and staff often are ill equipped to manage the challenges that come with being an economically-prepared institution (Brand, 1997). Initiatives that garner support by community college leadership include dual enrollment, applied baccalaureate degrees, honors programs, contract training, and certificate programs (Bailey & Morest, 2004).

Students

Seventy-four percent of community college students say that their primary or secondary reason for attending the community college is to transfer to a four-year college or university (Community College Survey of Student Engagement, 2005). Further, when surveyed, most students say they are in the college so they can get jobs or get better jobs than what they had. For many students, there is little difference between what colleges consider workforce preparation, community education, or academic transfer preparation except in the prerequisites required and transferability allowed for each course. This fact has been embedded into the national policy rhetoric: "In this consumer-driven environment, students increasingly care little about the distinctions that sometimes preoccupy the academic establishment" (U.S. Department of Higher Education, 2006, p. viii).

Certainly, students benefit from a unity of college mission instead of disunity: "Separation of remedial, workforce, and academic missions fails to promote economic and academic advancement for disadvantaged students" (McClenney, 2007).

Faculty

"The future of the collegiate function in community colleges must focus largely on the role of faculty, for it is the faulty who are responsible for the overall academic quality of students" (Nora, 2000, p. 5). As Van Ast (1999) says about open door colleges, "The teacher is the crucial and pivotal reference in the classroom and learning experience" (p. 561).

However, little research exists that shows what community college faculty believe to be the community college mission. Outcalt (2002a) points out that few national studies have attempted a broad analysis of contemporary community college faculty so that much of our understanding about faculty today is anecdotal. Most faculty research is about faculty participation in shared governance and union negotiation or about teaching styles. Some literature about faculty has been concerned with their professional identity. Community college faculty are difficult to define as a professional class because they are neither high school teachers nor university professors (Grubb, 1999; John S. Levin, Kater, & Wagoner, 2006; McGrath & Spear, 1991; Outcalt, 2002a; Van Ast, 1999).

Data from a 1995 RAND survey show that faculty do not agree on one mission. They split evenly between workforce mission and transfer mission as the two most important current missions of the community college. Not surprisingly, those faculty who self-identified as vocational faculty chose workplace preparation as the ideal dominant mission of a community college, while those faculty who self-identified as transfer faculty chose transfer as the ideal dominant mission. The researchers asked faculty about their colleges' participation in tech-prep, contract training, school-to-work, and co-op training: "the results suggest a considerable amount of ignorance about the existence of

these activities" (Brewer, 1999, p. 21). Further, only one in ten faculty claimed to be strongly supportive of the college's mission.

Faculty Experience of Conflict

"Conflict is 'an expressed struggle between at least two interdependent parties who perceive incompatible goals, scarce resources, and interference from others in achieving their goals'" (Wilmot & Hocker, 2001, as cited in Oetzel and Ting-Toomey, 2006, pi. xi). A review of "goals" studies shows that incompatible goals—or the perception of them—create conflict between the people working within an organization. Goodlad (1976) calls goal tension the most common reason for conflict within higher education institutions. He identifies four contradictory goals: (1) the goal to provide a national workforce, educated in areas of necessity for national need; (2) the goal to reward students (and ensure they become well-employed) for their efforts; (3) the goal to assist the student-as-individual who seeks personal philosophical knowledge or growth; and (4) the goal to assist teachers and academics who wish to sustain and grow their recognition and disciplines.

Goals-conflict has been identified as a source of faculty conflict within community colleges. Levin (2006) asserts that faculty are "not only the critical labor element in the pursuit of economic goals but also a potential source of opposition to institutional economic behaviors" (p. 70). This opposition is real: Lack of faculty interest was perceived as a strong obstacle to the internationalization of curriculum by two-thirds (66.3%) of responding institutions to a survey about globalization in the institution (Levin, 2006).

Faculty are isolated by discipline and fragmented by many responsibilities, occupational faculty even more so as they are held more responsible for finding community partnerships and financial support for their programs (Grubb, 1999). Levin (2006) explains that "there is little attention to cultural conflict between faculty and individuals or groups external to the institution" (p. 64). It is agreed generally that faculty and management—administration and the board of trustees—demonstrate conflict, but management often is responding to external pressures.

> Although faculty claim that they are central to both institutional functioning and institutional purpose, and they certainly participate in the administration of work, including governance, at the community college, their goals for the institution are unrealized because economic goals, including training for a competitive global economy, and policies as well as accountability measures from governments are pursued as priorities. (Levin, Kater & Wagoner, 2006, p. 13)

Levin (2006) and Levin, Kater, and Wagoner (2006) offer the most detailed research about community college faculty at odds with the mission. A qualitative study of seven community colleges analyzes faculty discourse to show the changes of the community college toward neoliberalism. The business and managerial discourse of the college is found to be propelled by college presidents and other managers, and thus not a proactive choice by faculty. Faculty see that community colleges are organizing to curry favor with businesses. Faculty are not in a position to resist these changes because they are decentralized; unionized colleges have the most central voice, but that voice is not "innovative" (p. 79). Faculty express their values in language that shows conflict with the community college's behavior, yet they are the passive agents of many of those behaviors through their teaching: "As agents of the institution, faculty are compromised" (Levin, 2006, p. 84).

Levin sees that faculty use language to express their conflict with the economic position of the community college but they still express unity with the institution's missions and actions, "even if they are opposed to some institutional actions" (p. 80). His explanation for this apparently contradictory behavior is that they are victims of the "corporatization of the self" (Levin, 2006).

Faculty Satisfaction

Other research paints a less grim picture of faculty identity. Hardy and Laanan (2006) analyze National Study of Post-Secondary Faculty data to determine characteristics of two-year college faculty. Overall, faculty respond that they are satisfied with their work; in fact, "the majority of full-time community college faculty respondents to the survey did not choose the 'very' or 'somewhat' negative response on *any* of the NSOPF:99 satisfaction, rating, or opinion items" (p. 803). The survey shows a gap in responses between experienced and less-experienced full-time faculty; younger faculty are less pleased with their work and other factors at the college, which could become more pronounced as more satisfied, older employees retire.

> The data in this study indicate that, on the whole, the institutional factors about which most faculty are most pleased revolve around their instructional duties and the autonomy that they have regarding how to carry out those duties in an environment where all faculty members are treated fairly and teaching effectiveness is the primary gauge by which individual and institutional effectiveness are measured. (p. 809)

Academic and Workforce Faculty Identity

McGrath and Spear (1991) believe that "role ambiguities hit teachers of the traditional liberal arts much harder than their colleagues in vocational programs" (p. 142), partly because workforce professors come originally from industrial careers and view

their positions at the college as social advancement. Further, faculty in workforce areas may develop greater mentoring relationships with their students as they work with them to meet their goals. They relate strongly to their professional identities. Gray and Herr (1998) assert:

> One universal characteristic of a professional endeavor, such as workforce education, is that its members have a sense of the antecedents of the profession—how the profession evolved to where it is presently. Another characteristic is that its practitioners have a clear idea of the mission of the professional. The ethical obligations of the field flow from the mission. (p. 1)

Liberal arts faculty typically see students for one or two semesters only and are less a part of the students' overall growth and success (McGrath & Spear, 1991). As "short-term certificate programs" grow in number, and contact with each student decreases, one can wonder if the level of attachment workforce faculty have to their students will decrease, as well.

Grubb (1999) believes that academic faculty are more valued because administrators tend to hail from academics and reward faculty like themselves. This is despite the fact that workforce instructors often feel they meet student needs better than the academic faculty. One HVAC instructor said, "At least what we're teaching them, it gives them something they then can fall back on" (Grubb, 1999, p. 97).

Nationally, we see increased policy attention to the importance of growing an innovative, well-educated American workforce, and funding opportunities for workforce and program development. On the other hand, much of the policy goes unheard at the campus-level, and grants are often program specific, not uniform in mission; thus, innovations are uneven, and programs change as the economy changes. No wonder the perceived gap between academic and workforce faculty continues.

Expectations for the Future

Bailey and Morest (2004) found that each program at community colleges has its own faculty, facilities, and curricula—and often its own administration—so that "little knowledge sharing occurs between programs" (p. 26). They argue that this absence of integration perpetuates the comprehensive college mission at the expense of efficiency but perhaps at the benefit of students. Because community colleges are so reliant upon their benefactors who each have preferred programs and favored mission strategies, "a more focused strategy … implies giving up students, revenues, and political support in favor of a plausible but unmeasured benefit in efficiency" (p. 35).

Boggs (1993) calls for a new paradigm shift that will change the roles of faculty and reduce the level of autonomy with which faculty are satisfied: "Under the new paradigm, they will be designers, managers, promoters, and facilitators of student learning, in much the same way that a coach facilitates the very best performance of an athlete" (Boggs, 1993, p. 3).

When the next NSOPF is analyzed, what will be the findings of employee satisfaction, given the transformations that are being called for to their job duties? How will faculty change? Outcalt (2002a) finds that faculty are becoming more involved in off-campus activities than they have in the past, notably in professional organizations. They are experiencing additional pressure to engage in academic research and to publish in professional journals: "Changes in the preparation of the faculty might contribute to this overall sense that community college instructors would do well to emulate four-year faculty" (Outcalt, 2002a, p. 23).

Certainly, much responsibility for student success rides on the shoulders of all faculty. Pressures on faculty include no less than

- Advising students to succeed in a global economy
- Knowing how to reach and teach a diverse student body, including an increasingly international student body
- Encouraging a global perspective within the classroom
- Mastering technology and disseminating technological knowledge to students
- Assuming funding responsibility for college programs by seeking grants and conducting research, especially in the STEM subjects
- Heeding the needs of students who arrive unprepared for the learning required.

Roueche and Roueche (2000) express further the expectations for faculty in the 21st century:

> Faculty will be the collaborators and the models, teaching students about living in a world where they are seriously dependent upon one another. They will be challenged to identify the characteristics and attributes that make for a truly educated person, and to articulate, demonstrate, and prove that what they teach and what students must know and learn are related. They will balance academic freedom and professional responsibility to teach what matters to individuals and contributes to the common good. We contend that in the future there will be little difference, if any, between an educated person and a person educated to make significant contributions to the workforce. In sum, that person will be the product of an educational experience with faculty who can see the larger picture and put students in it. (p. 19)

While this may sound like a tall order, community college faculty members' dedication to their profession suggests that this group is hungry for meaning in their work (Grubb, 1999; Outcalt, 2002b; Van Ast, 1999).

Summary

Today, community colleges face complex pressures. They struggle to identify their historical mission and lay claim to the mission they must espouse in the future. They face calls to champion the success of the economy and to unite local, state, national, and global needs in this "flattening world." They face political and financial pressures that emphasize priorities that do not align. They face internal organizational struggles to determine the direction of the college while and to decide who has stake in determining the mission.

The pressures affect the faculty, yet little has been done to determine how the faculty are affected or what they believe the mission should be. How much more will faculty have to change, and what part of their professional identity will they have to forego as they look to the future? What are faculty willing to do to meet the needs of community colleges and community college students in the 21st century? The research that follows examines the pressures community college faculty may be aware of and how they respond to these pressures, especially how they respond to the economic mission of the community college.

CHAPTER 3

METHODOLOGY

This chapter examines the epistemology of the study. It establishes the methodology and paradigm of the study. In keeping with the long tradition of educational research, this study assumed a post-positivist paradigm (Mertens, 2005). The study was descriptive; it sought objective discovery about faculty experiences and awareness, and it assumed that external pressures acting upon the community college are generalizeable across faculty.

Survey Methodology

The study method was the survey. The survey sought descriptive data about the state of faculty responsiveness to and awareness of the community college 21st century mission.

Surveys help others "understand or predict human behavior or conditions" (Alreck & Settle, 2004, p. 3). Surveys help to direct decision-making and to further theoretical research (Alreck & Settle, 2004). This study was designed to do the latter, with the hope that the results might be used for leadership and management action as a secondary effect. A survey cannot "dictate decisions" (Alreck & Settle, 2004, p. 9), but it can contribute to the necessary knowledge for making action decisions (Alreck & Settle, 2004).

This survey was designed to answer questions about the respondents' attitudes, a process that includes three parts: "(1) What the person *knows* or *believes* about the topic,

(2) how the person feels about the topic or how it's *valued*, and (3) the likelihood that the individual will take *action* based on the attitude" (Alreck & Settle, 2004, p. 13). The survey for this study was a descriptive survey to describe the characteristics of the sample faculty at one point in time (Mertens, 2005).

Responding to Alternative Paradigms

A critique could be made that a survey oversimplifies complex issues (Mertens, 2005), and faculty identity is a complex issue. Complexity is nonlinear, driven by many forces, and creating many unexpected outcomes. An assumption is made often that "complexity is best understood with a narrative" (Browning & Boudes, 2005, p. 35), which is not obtainable via an anonymous survey.

However, leadership today requires understanding the many influences at the community college, including faculty responses to leadership challenges. Collecting survey data from individual faculty united their many voices into one, providing insight into how the faculty body responds to external forces and internal leadership initiatives that seek to govern the college in this complex environment.

Some researchers—e.g., feminist researchers—use the survey as a political tool to foray into the post-positivist epistemology of knowledge (Mertens, 2005). This use of the dominant tool for subverting the tool's own dominant epistemology is subversive and effective. A point could be made that using the quantitative approach to provide data to managers and leaders subverted the tools of management for the benefit of the academic. This critical paradigm aligns with Levin, Kater, and Wagoner (2006) who take a critical, neo-Marxist approach to researching faculty control by neo-corporate organizations. To take a critical approach, the researcher would have had to assume that the responding

faculty members identified with self-identifying meaning-making rather than the dominant language of management. This assumption is discussed in Chapter 5.

In sum, consideration of these points demonstrates that survey methods are tools that further knowledge and lend themselves to understanding meaning. Feyerabend, a contributor to post-positivist epistemology, acknowledged, "Scientific thinking, like all human thought, is historically conditioned" (Crotty, 2003, p. 39); it is "'indeterminate in many ways, ambiguous, *and never fully separated from the historical background*'" (Feyeraband, 2003, p. 51; in Crotty, 2005, p. 39).

Therefore, the researcher did not propose that this survey of faculty would uncover a perpetual truth about the experience of all community college faculty. Rather, the descriptive and cross-comparative data were designed to reveal powerful information about the current relationship of community college faculty to the state of community colleges today.

The Survey Instrument

The survey instrument is Appendix E. The survey was administered as a static Web survey. Alreck and Settle (2004) explain why Web surveys are popular and superior to other methods of data collection:

- Internet access and acceptance have grown rapidly
- More stable, wide-band connections are ready available
- A wide spectrum of demographic groups use the Internet
- Telephone survey refusal rates have grown sharply
- Mail survey nonresponse is usually *very* high

- Web surveys can reduce data collection costs greatly
- Web surveys can be conducted more quickly than others
- Web survey technology reduces data handling problems
- Web survey services are readily available and affordable
- International reach is both feasible and economical (p. 183)

Because faculty are computer literate, generally, and have knowable email addresses related to their colleges, there was little concern of marginalizing a group of desired participants through Web mode.

The survey was conducted on Survey Monkey, an online survey program. An alternative survey was available in print, and it was "unimode" (Dillman, 2007, p. 459), repeating the questions and choices in the same format as the Web survey, designed to achieve equivalency in responses.

Survey Question Design

Each survey question was cross-checked to ensure that it tested the research questions. A few Likert Scale questions were asked to test for agreement or scaled opinion. Many of the questions are forced choice questions; research shows forced-choice questions encourage respondents to think carefully about their answers and promote more reflective response behavior than questions that ask respondents to check all answers that apply (Dillman, 2007). Other questions did request faculty to "Choose all that apply," to allow for a broad range of possibilities. Questions marked with an asterisk were used by permission from the Community College Faculty Student Survey Engagement (CCFSSE). By request, the researcher acknowledged CCFSSE on the Web survey. The

CCFSSE questions were demographic, seeking responses that describe the faculty member.

Research Question 1 read as follows:

(1) What do community college faculty members consider the dominant mission of the community college?

Survey Questions 1, 2, 3, and 9 were designed to answer Research Question 1. These questions asked faculty to define what they consider to be their predominant roles, responsibilities in the classroom, responsibilities to the college mission, and responsibilities to the community. Faculty were given many variables to choose from and asked "Choose all that apply" for Survey Questions 2 and 9 and "Pick two only" for Survey Question 3, in an attempt not to narrow artificially the faculty opinions of their primary responsibilities.

Research Question 2 asks,

(2) To what extent are community college faculty aware of the pressures on the college from external forces, including the global market and national and state policies to maintain economic competitiveness through higher education?

Survey Questions 4, 5, 6, 7, 8, and 12 were designed to answer Research Question 2. Survey Questions 4, 5, and 6 were singular answers, "Yes" or "No," to determine faculty experience outside of the community college. Survey Questions 7, 8, and 12 were designed to determine what information faculty are introduced to by others or what they ascertain on their own, or if they have not been exposed to current issues of the day. Survey Question 12 deserves some review, as the question asks faculty to "Please explain

your exposure to the following documents." The pieces of literature selected for this question were of interest for a few reasons:

- Option 1, *Closing the Gaps*: This Texas Higher Education Coordinating Board plan has dominated Texas higher education policy since its inception in 2000. The goal of *Closing the Gaps* is to increase access, participation, and success of Texas college students so that Texas will remain economically competitive.
- Option 2, *The New Community College Compact of Texas (a.k.a. the Texas Compact by the Texas Association of Community Colleges):* This policy proposal seeks, among other things, sufficient base funding, funding for employee benefits, and contingency funding for college growth. In 2007-08, when the survey was designed and distributed, the document was in discussion among the community college administrators. In 2009, it has become a major piece of interest that the Texas community college lobbying arm, Texas Association of Community Colleges, is addressing with the legislative session (2009).
- Option 3, *The College Readiness Standards:* This document was a part of the 2007 Texas 80th legislative session's House Bill 1, which included support for improving the transition between high school and college. "The standards" require major curriculum design changes at the high school level in order to prepare high school students for college, including the addition of more applied sciences and mathematics. The standards also

include the addition of statistics to the college curriculum, emphasizing making students "work ready" by the time they graduate from college.

- Option 4, *A Test of Leadership: Charting the Future of U.S. Higher Education (aka The Spellings Commission Report):* A national document chartered by then Secretary of Education Margaret Spellings, the report points out the failure of higher education to prepare students to work in the 21st century economy, and it recognizes community colleges as major contributors in the preparation of people for work.
- Option 5, *The World is Flat*, by Thomas Friedman: This book was on the New York Times Bestseller List for 105 weeks ("Best Sellers, April 29, 2007", 2007). Part of its premise is that the economic status of the globe is not bounded by national policies any longer. It states that the United States must change its educational system in order to remain economically competitive in the current geo-political realm.
- Option 6, *The Rise of the Creative Class*, by Richard Florida: A less well-known book with a popular following, *The Rise of the Creative Class* posits that the manufacturing status of the United States is not what drives its economy any longer, and old habits die hard among politicians, business leaders, and education leaders who attempt to train a workforce for a dead economy.

These pieces of literature were not a list of what faculty should be reading. Rather, they were recent pieces of literature that addressed directly and tangentially the

economic climate of community colleges. It was hoped that these disparate pieces would provide a picture of how faculty might be learning about these topics.

Research Question 3 asks,

(3) What are faculty attitudes toward the college's responses to these pressures? Do faculty support organizational changes to respond to these challenges? Do faculty support uniting the academic and workforce missions?

Survey Questions 10, 11, and 13 were designed to answer this question. Survey Questions 10 and 11 were Likert Scale questions designed to determine faculty levels of agreement or disagreement about statements related to the mission, and support or opposition to statements about change initiatives. Survey Question 13, like Survey Question 12, was designed a little differently. Also a Likert scale question designed to test agreement or disagreement, this question offered faculty the opportunity to agree or disagree with various statements that were paraphrased or quoted from current literature. The sources of the literature were not given to the faculty. The sources are as follows:

- The college's economic behaviors contradict faculty values (J. S. Levin, 2006)
- Faculty need to assert their responsibilities for student learning, even if opposing the college's mission (Grubb,1999)
- Employers—not students—are the true customers of the community college (Flynn, 2005)
- Texas community colleges bear the brunt of *Closing the Gaps* requirements (Levin, Kater, & Waggoner, 2006)

- Faculty need to develop new ways to build student abilities in science and math (Patton, 2006)
- Quality education always prepares students for the world of work (Cohen & Brawer, 1987)
- All students should want to transfer to four-year colleges (McGrath & Spear, 1991)
- Students will be shortchanged if the educational system does not change to meet the needs of the flat world (Friedman, 2005)
- Community colleges should invest in the arts to build the community economy (Rosenfeld, 2006)

Survey Prototype

The survey was administered as a prototype to 18 current and former community college faculty. The researcher sought feedback from the prototype group about questions that needed revision. As a result of the prototype, the researcher edited some language use on the questions, but no other edits were needed before the data collection began.

Survey Population and Sample Recruitment

Respondents were full-time community college faculty from Texas, with no control for which community college the faculty represented. Texas has more than 50 community college districts. The survey sought to represent a cross sample of academic and workforce faculty; however, the faculty self-selected their teaching mission and teaching field, and no attempt was made to ensure equal responses from the possible fields. Out of 194 attempts to the survey, 167 responses were deemed complete and valid.

One inducement was offered, the opportunity to receive a report on the results once the survey was completed. While only a "token," research shows that such offers are an important social exchange and consistently improve response rates (Dillman, 2007).

The sample was recruited through several strategies:

(1) The director of the Texas Community College Teachers Association (TCCTA) recommended that the researcher contact specific TCCTA committees with interests relating to this research. The researcher asked those committee members to invite faculty at their colleges to respond to the survey. As a result of that invitation, one committee member responded to the researcher directly, which is discussed below. Because of the blind response technique, the researcher does not know if the committee solicitations were successful in obtaining any survey responses. Due to the timing of the surveys received, the researcher does not believe the committee solicitations were successful sample recruitments, except in the following case.

(2) The researcher was invited to address the Texas Organization for Associate Degree Nursing (TOADN). The annual TOADN meeting was held the Thursday before the annual TCCTA meeting in Dallas, Texas, on February 21, 2008. At the meeting, the researcher spoke briefly in front of a group of 75 nursing faculty members. She summarized her research and asked the participants of the committee to provide their email addresses to receive the online survey. The researcher announced that paper surveys were available, if any faculty member wished to take the survey on paper.

(3) The researcher contacted the deans or equivalent of both the academic and the workforce divisions, asking for permission to email faculty with the Web link for the survey. No emails were returned. The researcher then asked the leads of the TCCTA

academic and workforce divisions if she could address their groups at the annual conference. Two results, described below, were obtained from that outreach.

(4) The researcher was invited to attend a presentation on Thursday, February 21, 2008, on The Network, a grant-funded, workforce portal. Approximately 40 faculty members attended. The researcher spoke briefly in advance of the session and again requested email addresses and offered paper surveys.

(5) The researcher was invited to address the faculty attendees at the Great Ideas for Teaching Students (GIFTS) session on the morning of Friday, February 22, 2009. Approximately 100 faculty members were present. The researcher spoke briefly in advance of the session and again solicited for email addresses and offered paper surveys.

After attendance at the TCCTA conference, the researcher emailed her survey link to the people who offered to take the survey. She had collected 97 email addresses or business cards. Because the survey sample was not large enough, the researcher began an alternate survey collection. Dillman (2007) notes that following up with an alternate survey mode can be very successful.

The alternate method of data collection was to email the Faculty Senate presidents of each community college in Texas and request that they take the survey. The email also requested that they distribute the survey to their Faculty Senate membership, if they so chose. In total, 147 personalized emails were sent to faculty members solicited through TOADN, TCCTA, and faculty senate presidents. As a result, 194 surveys were started or completed, 167 of which were deemed valid.

Security of the Data

All policies for privacy and security according to the Internal Review Board (IRB) at the University of Texas at Austin were followed, and IRB approval was granted for the study in January 2008 (IRB Approval Number 2007120016). The researcher first notified each community college president that the survey was being conducted and that the faculty were not being asked to answer any questions that would compromise the community college or to use any college equipment to take the survey. The first page of the online survey was a letter required by the IRB that announced the voluntary nature of the survey, the privacy of it, the IRB number, and the contact information for the researcher and her university department. This letter was copied as a cover sheet for the available paper surveys. On Survey Monkey, the researcher enabled the optional SSL (encrypted security) so that respondents knew that their responses were anonymous and protected from cyber theft. No survey data were identified by name, and the data were downloaded to a personal computer owned by the researcher that is protected by a firewall and password protected by a secure cable internet connection.

The Treatment of the Data

The data were collected in spring 2008. As surveys were returned, they were screened for faculty stating they were not full-time faculty, as the research is designed to examine full-time faculty. Responses to the survey data were downloaded into one data document, and descriptive statistics, including cross tabulation for chi-squares, and means tests, plus ANOVA, were conducted with the statistical software program SPSS to analyze the research questions. Responses to the written question at the end of the survey were coded and analyzed for trends.

Summary

Previous researchers have identified a few key elements about faculty attitudes toward the community college mission; other researchers have identified key insights into faculty demographics and job satisfaction; other researchers have considered the changes faculty will need to make to keep up with the 21st century requirements demanded of the community college. This research study provides data about faculty that have not been collected before, and the analysis of the data speaks to these important issues.

CHAPTER 4

FINDINGS

Introduction

The survey was conducted online using Survey Monkey, with an option to take the survey on paper. All respondents chose to take the online survey. The last complete survey was taken on May 28, 2008. Out of a sample size of 196, 167 surveys were deemed valid. Because the survey was designed to research only full-time community college faculty, responses were removed if respondents self-identified as adjunct faculty, counselors who did not instruct in the classroom, and administrators who guest lectured but did not have contracted teaching duties. If a respondent did not complete more than 50 percent of the survey, his or her responses were deleted.

The data were downloaded into excel from Survey Monkey, and the survey responses were coded from nominal to numeric data, and then reviewed for accuracy. The variables were renamed, and the data were entered into SPSS v16. In SPSS, the variables were defined in useful terms.

Because the data were discrete, nominal variables, descriptive statistics were most useful in answering the research questions. A frequency analysis was conducted for each variable to analyze the mode of each variable and to verify accuracy of the data as entered into SPSS. Additional tests including cross tabulations for chi-square, means tests, and ANOVA were run.

Sample Characteristics

Demographic questions in the survey were designed to ascertain the characteristics of the survey sample. The dominant findings about the survey sample were:

- 81.2 percent were full-time faculty with no administrative, laboratory, or coaching duties
- 70 percent were not employed anywhere but their community college; of those who did work elsewhere, 10 percent had taught or were teaching at four-year colleges or universities
- 60 percent did not teach any online courses; 16 percent taught one or two per year
- A wide range of experience was represented: 23 percent had taught between 1–5 years at the community college; 28 percent had taught between 6-10 years; 19 percent had taught between 11-15 years; 16 percent had taught between 16-20 years; and 13 percent had taught 21 years or more
- 46 percent had less than one year of administrative experience; 26 percent had between one to five years administrative experience
- Four fields were the most widely represented, with nursing representing the greatest numbers: health sciences (36 percent); social sciences (8.7 percent); English (7.5 percent); and mathematics (6.8 percent).

- The sample was predominantly middle aged: 3.8 percent were less than 30; 13.8 percent were between 31-40; 29 percent were between the ages of 41-50; 44 percent were between the ages of 51-60; and 12.5 percent were over 61
- The sample was 71.4 percent female
- 66.5 percent had a master's degree as their highest degree; 19.3 percent had a doctorate
- 96.8 percent were native citizens of the United States
- 79.2 percent were white

Thus, the sample was an experienced group of faculty, most with master's degrees, some with administrative experience, and few with experience teaching online. The group was predominantly white and female.

Research Question 1

Research Question 1 read as follows:

(1) What do community college faculty members consider the dominant mission of the community college?

Survey Questions 1, 2, 3, and 9 were designed to answer Research Question 1, with the assumption that faculty members were teaching in the roles related to their perceived dominant mission of the college. A frequency analysis was conducted to determine the mode of each response. Based on the results of the frequency analysis, additional descriptive analyses were run.

Survey Question 1

Survey Question 1 asked if faculty mostly teach students for academic preparation (1), workforce preparation (2), or both academic and workforce preparation equally (3). Table 1 shows the results.

Table 4.1: Teaching for Academic or Workforce Preparation

	Frequency	Percent
Academic	64	38.3
Workforce	57	34.1
Both	44	26.3
Total	165	98.8

The dominant role of the respondents was to teach students for academic preparation, with a response rate of 38.3 percent. Workforce preparation was a close second at 34.1 percent, and teaching both equally was 26.3 percent of the respondents. Two respondents did not answer the question.

A frequency test on Survey Question 19 (Field) showed that the sample was heavily represented by faculty in the health sciences. Therefore, an additional statistical test was run to cross-tabulate the responses of Survey Question 1 with the teaching field of the respondents, to see if the teaching field of the respondents was significant to the findings. First, because Survey Question 19 (Field) had 38 possible options, the data were selected to isolate the four most frequent responses. The fields with the greatest responses were English (7.5 percent), Health Sciences (36 percent), Mathematics (6.8 percent) and Social Sciences (8.7 percent). Out of these selected cases, the health science faculty were the majority (57 out of the 94 selected responses). Table 4.2 shows the data for the chi-square test between faculty teaching field and faculty role.

Table 4.2: Teaching Field and Role Cross Tabulation

			Q1Role			
			Academic	Workforce	Both	Total
Q19Field	English	Count	7	1	4	12
		% within Q1Role	20.0%	2.6%	19.0%	12.8%
	Health	Count	7	36	14	57
		% within Q1Role	20.0%	94.7%	66.7%	60.6%
	Mathematics	Count	10	0	1	11
		% within Q1Role	28.6%	.0%	4.8%	11.7%
	Social Sciences	Count	11	1	2	14
		% within Q1Role	31.4%	2.6%	9.5%	14.9%
	Total	Count	35	38	21	94
		% within Q1Role	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

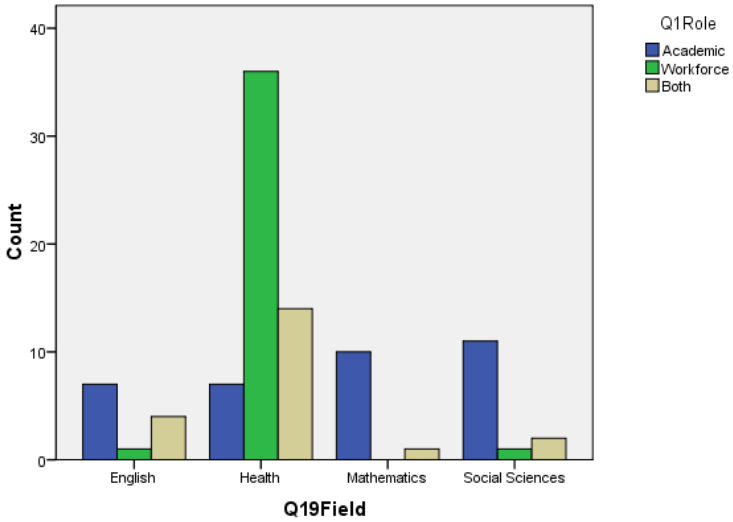
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	46.576[a]	6	.000

a. 7 cells (58.3%) have expected count less than 5. The minimum expected count is 2.46.

Significance was set as $\alpha = .05$, and the chi-square test was run. The test showed that the chi square value of 46.576 was significant at $p = .00$, so the field of the faculty (SQ19) was significant to the role selection (SQ1). The nursing faculty showed a strong predisposition toward option 2: "I mostly teach students for workforce preparation." 94.7 percent of the total workforce responses were given by nursing faculty. Social sciences faculty, English faculty, and mathematics faculty chose that they taught students for academic preparation. No mathematics faculty stated that they taught students for workforce preparation. One-third of the English faculty members (4 out of 12) stated that they taught for both academics and workforce equally, a greater number than the

mathematics faculty (1 out of 11) and the social science faculty (2 out of 14) combined. Figure 4.1 represents the findings.

Figure 4.1. Teaching Field and Role Cross Tabulation



Survey Question 2

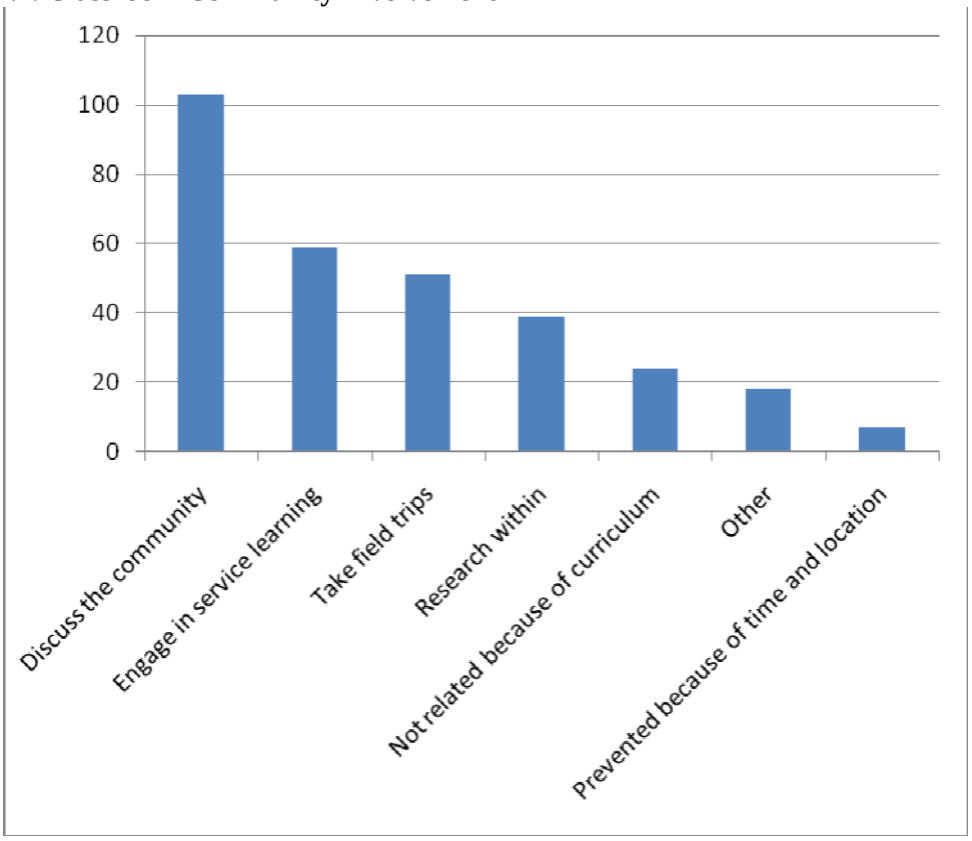
Survey Question 2 asked faculty members how closely they teach students to engage with the community. Table 4.3 shows the frequency of each response in descending order.

Table 4.3: Classroom Community Involvement

	Frequency	Percent
My classes discuss the community	103	61.7
My classes engage in service learning	59	35.3
My classes take field trips into the community	51	30.5
My classes include research within the community	39	23.4
My classes are not related to the community because of the curriculum	24	14.4
Other	18	10.8
My classes are prevented from community engagement because of their time and location	7	4.2

Faculty were asked to "choose all that apply." The most frequent response (61.7 percent) was option 3, "My classes discuss the community." The lowest response (4.2 percent) was option 1, "My classes are not related to the community because of their time and location." Figuring likelihood ratios between the greatest response ("My classes discuss the community") and the second greatest response ("My classes engage in service learning"), the results show that faculty were 1.75 times more likely to lead their classes to discuss the community than to actively engage in it. The active responses (engaging in service learning, taking field trips, and conducting research within the community) were close in likelihood, within a range of 12 points. Figure 4.2 represents the findings.

Figure 4.2. Classroom Community Involvement



Faculty were given the option to select "Other." Eighteen faculty members selected "other," and of those selections, 16 chose to explain. Ten of the faculty explained that their classes' community involvement was practicing clinicals in the community. Clinicals are a specific type of learning practiced by nursing faculty in which the students engage in direct observation of nursing practice in a hospital or clinic. This response corresponds to the high number of survey respondents from the health field. Two respondents explained that their classes were "built around input from community businesses." Another explained that he or she gives art demonstrations to community groups to recruit for a studio art class. Two respondents gave "Other" responses that mirrored the selection options within the survey question. One explained that his or her

students “have fieldwork experiences” and another explained that his or her students “discuss the possibility of working in community practice.”

Survey Question 3

Survey Question 3 asked faculty members about which responsibilities they believed to be most important as college instructors. Table 4.4 shows the combined frequency of these responses, in descending order.

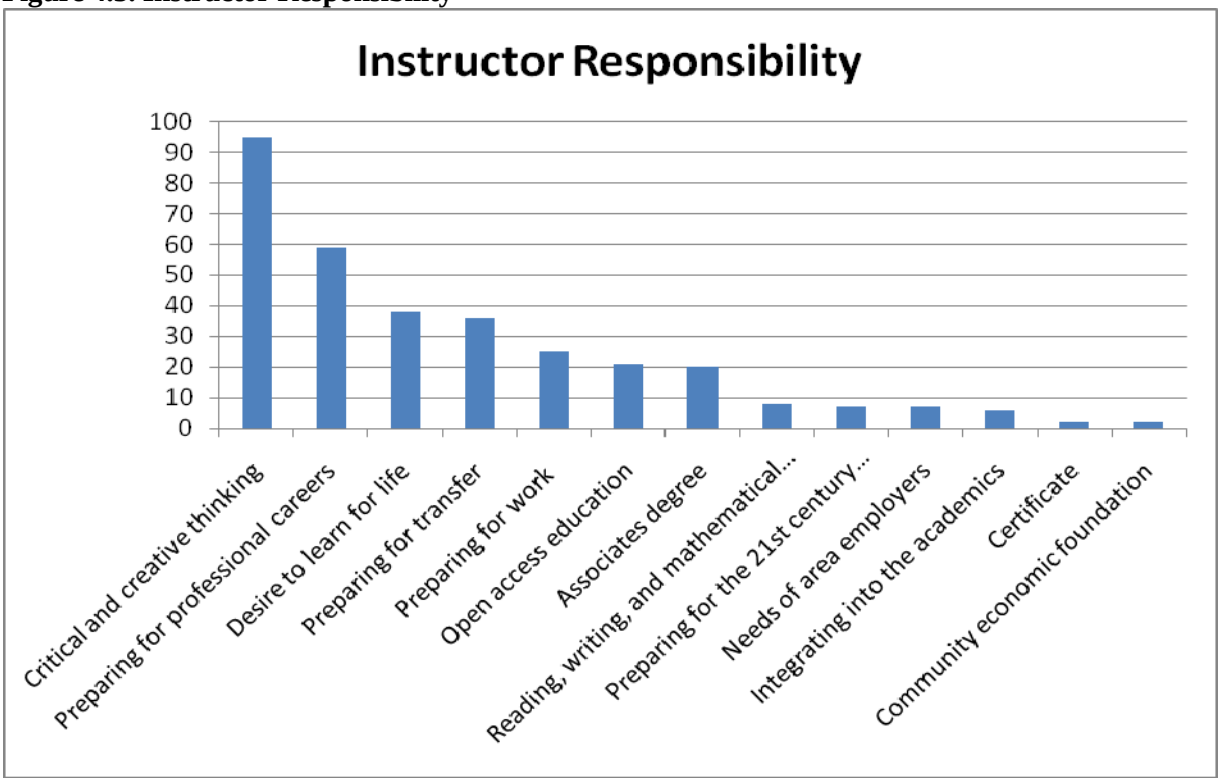
Table 4.4. Most Important Instructor Responsibility

	Frequency	Percent
Preparing students to think critically and creatively	95	29.1%
Preparing students for professional careers	59	18.1%
Creating in students a desire to learn for life	38	11.7%
Preparing students to transfer to a four-year college or university	36	11.0%
Preparing students for immediately applicable work skills	25	7.7%
Providing open access education for all	21	6.4%
Leading students to completion of an associate's degree	20	6.1%
Providing students with reading, writing, and mathematical literacy	8	2.5%
Preparing students for the 21st century economy	7	2.1%
Meeting the needs of area employers	7	2.1%
Integrating students into the academic world	6	1.8%
Leading students to completion of a certificate	2	0.6%
Building a strong community economic foundation	2	0.6%

Faculty were asked to select only two responsibilities out of 13 options. They were not asked to rank them. The responses were combined to determine the frequency of

responses. The most frequently selected responsibility was "Preparing students to think critically and creatively." Faculty were 1.6 times more likely to select this as their primary responsibility than they were to select the second most frequently selected responsibility, "Preparing students for professional careers." Faculty were 1.6 times more likely to select the second choice, "Preparing students for professional careers," than they were the third choice, "Creating in students a desire to learn for life." Figure 4.3 depicts the responses.

Figure 4.3. Instructor Responsibility



Survey Question 9

Survey Question 9 asked faculty members to rank their classroom responsibilities. Seventeen qualities were listed, and faculty were asked to rank each one with "Strongly

agree (4)," "Agree (3)," "Disagree (2)," and "Strongly Disagree (1)." A means test was run, and Table 4.5 shows the results of the test in descending order.

Table 4.5. Faculty Responsibility in the Classroom

	N	Mean	Std. Deviation
I must prepare students for critical thinking	167	3.83	.410
I must encourage students to be lifelong learners	167	3.72	.523
I must foster creative thinking in students	167	3.64	.551
I must prepare students for changing technology.	167	3.47	.619
I must encourage tolerance among students	166	3.44	.587
I must encourage students to develop their unique talents	165	3.39	.612
I must encourage students to appreciate multicultural diversity	166	3.37	.673
I must prepare students to obtain an associate's degree	166	3.36	.605
I must prepare students for lifelong careers	166	3.33	.764
I must prepare students for career advancement	165	3.25	.684
I must prepare students as workers that meet the needs of the American economy	165	3.20	.734
I must foster students "soft skills" and personal development	167	3.20	.722
I must prepare students for transfer to four-year institutions	164	3.17	.756
I must prepare students for global citizenship	163	3.02	.812
I must prepare students to work for local businesses	163	2.94	.799
I must prepare students as workers to fit the needs of the global economy	164	2.92	.783
I must prepare students to obtain a certificate	165	2.81	.788

The option with the most frequent "Strongly Agree" response was, "I must prepare students for critical thinking." 83.8 percent (140 out of 167 responses) selected "Strongly Agree." The option with the most frequent "Strongly Disagree" response was "I must prepare students to obtain a certificate." 5.4 percent (9 out of 165 responses) selected "Strongly Disagree." A means test was run, and the results showed faculty agree that all of these responsibilities are important. The means was greater than three ("Agree") in all but three cases. The highest mean corresponds to the highest mode, "I must prepare students for critical thinking," at M=3.83, and the lowest mean corresponds to the lowest mode, "I must prepare students to obtain a certificate," at M=2.81. The other lowest cases were, "I must prepare students as workers to fit the needs of the global economy" (M=2.92) and "I must prepare students to work for businesses" (M=2.94).

To determine if the means test was a significant measure for comparison, the multiple measures of the respondents' multiple opinions were treated as if they were repeated measures, and a Wilks' Lamba test was run, in which α=.05. The test showed that the Wilks' Lambda statistic was 0.25 and p=.000, showing that there is a significant difference between the means.

Research Question 2

Research Question 2 asks,

(2) To what extent are community college faculty aware of the pressures on the college from external forces, including the global market and national and state policies to maintain economic competitiveness through higher education?

Survey Questions 4, 5, 6, 7, 8, and 12 were designed to answer this question. A frequency analysis was conducted to determine the mode of each response. Based on the results of the frequency analysis, additional descriptive analyses were run.

Survey Questions 4, 5, and 6

Frequency tests on Survey Questions 4, 5, and 6 show that the faculty had little experience teaching in educational institutions other than their community colleges. The data show that most of the 167 faculty respondents had not taught in proprietary institutions, universities, or public schools. Out of those who had, the greatest number had taught in colleges or universities. The data show that 33.5 percent (56 out of 167) had taught in four-year institutions, 20.4 percent had taught in proprietary schools (34 out of 167), and 18 percent (30 out of 167) had taught in public schools. This is a duplicated number because faculty may have had experience with any combination of the three.

Cross tabulations were run to test the experience of faculty in relationship to their field. First, the variables from SQ19 Field were used to cross-tabulate Survey Question 4, to determine if faculty field is related to faculty experience in for-profit/proprietary colleges. Table 4.6 shows the results.

Table 4.6. Cross Tabulation Between Field and For-Profit Experience

			Q4Profit		
			0	For-profit	Total
Q19Field	Architecture	Count	1	0	1
		% within Q19Field	100.0%	.0%	100.0%
	Bio/life sciences	Count	5	0	5
		% within Q19Field	100.0%	.0%	100.0%
	Business Mgmt	Count	4	3	7
		% within Q19Field	57.1%	42.9%	100.0%

	Communications	Count	2	0	2
		% within Q19Field	100.0%	.0%	100.0%
	Computer Information Systems	Count	8	0	8
		% within Q19Field	100.0%	.0%	100.0%
	Natural Resources	Count	0	1	1
		% within Q19Field	.0%	100.0%	100.0%
	Construction	Count	1	0	1
		% within Q19Field	100.0%	.0%	100.0%
	Education	Count	5	0	5
		% within Q19Field	100.0%	.0%	100.0%
	Engineering	Count	1	0	1
		% within Q19Field	100.0%	.0%	100.0%
	English	Count	9	3	12
		% within Q19Field	75.0%	25.0%	100.0%
	Foreign Languages	Count	2	1	3
		% within Q19Field	66.7%	33.3%	100.0%
	Health	Count	47	11	58
		% within Q19Field	81.0%	19.0%	100.0%
	Law	Count	0	2	2
		% within Q19Field	.0%	100.0%	100.0%
	Humanities	Count	1	1	2
		% within Q19Field	50.0%	50.0%	100.0%
	Mathematics	Count	8	3	11
		% within Q19Field	72.7%	27.3%	100.0%
	Mechanics	Count	1	0	1
		% within Q19Field	100.0%	.0%	100.0%
	Recreation	Count	1	1	2
		% within Q19Field	50.0%	50.0%	100.0%
	Personal Services	Count	1	0	1
		% within Q19Field	100.0%	.0%	100.0%

	Physical Sciences	Count	0	1	1
		% within Q19Field	.0%	100.0%	100.0%
	Protection Services	Count	1	0	1
		% within Q19Field	100.0%	.0%	100.0%
	Psychology	Count	4	1	5
		% within Q19Field	80.0%	20.0%	100.0%
	Social Sciences	Count	11	3	14
		% within Q19Field	78.6%	21.4%	100.0%
	Arts	Count	4	0	4
		% within Q19Field	100.0%	.0%	100.0%
	Developmental math	Count	3	0	3
		% within Q19Field	100.0%	.0%	100.0%
	Developmental Reading	Count	3	0	3
		% within Q19Field	100.0%	.0%	100.0%
	Developmental Writing	Count	1	0	1
		% within Q19Field	100.0%	.0%	100.0%
	Other	Count	5	1	6
		% within Q19Field	83.3%	16.7%	100.0%
	Total	Count	129	32	161
		% within Q19Field	80.1%	19.9%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	30.911[a]	26	.232

a. 47 cells (87.0%) have expected count less than 5. The minimum expected count is .20.

Significance was set at α=.05, and the chi-square was run. The chi-square value was 30.911 and p=.232. Therefore, the cross-tabulation between the teaching field and experience in for-profit colleges was not significant.

An additional test was run to determine if a relationship existed between experience with for-profit colleges and identification as academic, workforce, or equally academic and workforce faculty. A cross tabulation was run. Table 4.7 shows the results.

Table 4.7. For-profit/Proprietary School Experience and Role Cross Tabulation

			Q1Role			
			Academic	Workforce	Both	Total
Q4Profit	None	Count	50	49	32	131
		% within Q4Profit	38.2%	37.4%	24.4%	100.0%
	For-profit	Count	14	8	12	34
		% within Q4Profit	41.2%	23.5%	35.3%	100.0%
	Total	Count	64	57	44	165
		% within Q4Profit	38.8%	34.5%	26.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.763[a]	2	.251

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 9.07.

Significance was set at α=.05, and the test was run. The chi-square value was 2.763, and p=.251, which is greater than α. Therefore, we fail to reject the null hypothesis

and conclude that there is no relationship between role identification and experience in a proprietary institution.

Next, the variables from SQ19 Field were used to cross-tabulate Survey Question 5, to determine if faculty field is related to faculty experience in four-year colleges and universities. Table 4.8 shows the results.

Table 4.8. Cross Tabulation Between Field and Four-Year College or University Experience

			Q54year		
			0	University	Total
Q19Field	Architecture	Count	1	0	1
		% within Q19Field	100.0%	.0%	100.0%
	Bio/life sciences	Count	5	0	5
		% within Q19Field	100.0%	.0%	100.0%
	Business Mgmt	Count	3	4	7
		% within Q19Field	42.9%	57.1%	100.0%
	Communications	Count	1	1	2
		% within Q19Field	50.0%	50.0%	100.0%
	Computer Information Systems	Count	8	0	8
		% within Q19Field	100.0%	.0%	100.0%
	Natural Resources	Count	1	0	1
		% within Q19Field	100.0%	.0%	100.0%
	Construction	Count	1	0	1
		% within Q19Field	100.0%	.0%	100.0%
	Education	Count	3	2	5
		% within Q19Field	60.0%	40.0%	100.0%
	Engineering	Count	0	1	1
		% within Q19Field	.0%	100.0%	100.0%
	English	Count	4	8	12
		% within Q19Field	33.3%	66.7%	100.0%
	Foreign Languages	Count	2	1	3

	% within Q19Field	66.7%	33.3%	100.0%
Health	Count	45	13	58
	% within Q19Field	77.6%	22.4%	100.0%
Law	Count	1	1	2
	% within Q19Field	50.0%	50.0%	100.0%
Humanities	Count	0	2	2
	% within Q19Field	.0%	100.0%	100.0%
Mathematics	Count	5	6	11
	% within Q19Field	45.5%	54.5%	100.0%
Mechanics	Count	1	0	1
	% within Q19Field	100.0%	.0%	100.0%
Recreation	Count	1	1	2
	% within Q19Field	50.0%	50.0%	100.0%
Personal Services	Count	1	0	1
	% within Q19Field	100.0%	.0%	100.0%
Physical Sciences	Count	0	1	1
	% within Q19Field	.0%	100.0%	100.0%
Protection Services	Count	1	0	1
	% within Q19Field	100.0%	.0%	100.0%
Psychology	Count	2	3	5
	% within Q19Field	40.0%	60.0%	100.0%
Social Sciences	Count	7	7	14
	% within Q19Field	50.0%	50.0%	100.0%
Arts	Count	4	0	4
	% within Q19Field	100.0%	.0%	100.0%
Developmental math	Count	2	1	3
	% within Q19Field	66.7%	33.3%	100.0%
Developmental Reading	Count	3	0	3
	% within Q19Field	100.0%	.0%	100.0%
Developmental Writing	Count	1	0	1

		% within Q19Field	100.0%	.0%	100.0%
	Other	Count	3	3	6
		% within Q19Field	50.0%	50.0%	100.0%
	Total	Count	106	55	161
		% within Q19Field	65.8%	34.2%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	39.052[a]	26	.048

a. 48 cells (88.9%) have expected count less than 5. The minimum expected count is .34.

Significance was set at α=.05, and the chi-square was run. The chi-square value was 39.052, and p=.048, which is less than alpha. Therefore, we reject the null hypothesis and confirm that there is a significant relationship between teaching field and experience teaching in a four-year college or university.

Another cross tabulation was run for Survey Question 5, to determine if there was a significant relationship between university or college teaching experience and faculty identity as workforce, academic, or both academic and workforce faculty. Table 4.9 shows the results.

Table 4.9. Cross Tabulation Between Four-year College or University Experience and Role

			Q1Role			
			Academic	Workforce	Both	Total
Q54year	None	Count	37	43	29	109
		% within Q54year	33.9%	39.4%	26.6%	100.0%
	University	Count	27	14	15	56
		% within Q54year	48.2%	25.0%	26.8%	100.0%

	Total	Count	64	57	44	165
		% within Q54year	38.8%	34.5%	26.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.178[a]	2	.124

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 14.93.

Significance was set at α=.05, and the test was run. The chi-square value was 4.178, and p=.124, which is greater than α. Therefore, we fail to reject the null hypothesis and conclude that there is no relationship between role identification and experience teaching in a college or university.

Finally, cross tabulations were run for Survey Question 6. First, a test was run to determine if there was a significant relationship between public school (K-12) teaching experience and teaching field. The results are shown in Table 4.10.

Table 4.10. Cross Tabulation Between Field and Public School Experience

			Q6K12		
			0	K-12	Total
Q19Field	Architecture	Count	1	0	1
		% within Q19Field	100.0%	.0%	100.0%
	Bio/life sciences	Count	4	1	5
		% within Q19Field	80.0%	20.0%	100.0%
	Business Mgmt	Count	5	2	7
		% within Q19Field	71.4%	28.6%	100.0%
	Communications	Count	1	1	2
		% within Q19Field	50.0%	50.0%	100.0%
	Computer Information	Count	7	1	8

Systems	% within Q19Field	87.5%	12.5%	100.0%
Natural Resources	Count	1	0	1
	% within Q19Field	100.0%	.0%	100.0%
Construction	Count	1	0	1
	% within Q19Field	100.0%	.0%	100.0%
Education	Count	2	3	5
	% within Q19Field	40.0%	60.0%	100.0%
Engineering	Count	1	0	1
	% within Q19Field	100.0%	.0%	100.0%
English	Count	10	2	12
	% within Q19Field	83.3%	16.7%	100.0%
Foreign Languages	Count	2	1	3
	% within Q19Field	66.7%	33.3%	100.0%
Health	Count	57	1	58
	% within Q19Field	98.3%	1.7%	100.0%
Law	Count	2	0	2
	% within Q19Field	100.0%	.0%	100.0%
Humanities	Count	1	1	2
	% within Q19Field	50.0%	50.0%	100.0%
Mathematics	Count	5	6	11
	% within Q19Field	45.5%	54.5%	100.0%
Mechanics	Count	1	0	1
	% within Q19Field	100.0%	.0%	100.0%
Recreation	Count	1	1	2
	% within Q19Field	50.0%	50.0%	100.0%
Personal Services	Count	0	1	1
	% within Q19Field	.0%	100.0%	100.0%
Physical Sciences	Count	1	0	1
	% within Q19Field	100.0%	.0%	100.0%
Protection Services	Count	1	0	1

		% within Q19Field	100.0%	.0%	100.0%
	Psychology	Count	4	1	5
		% within Q19Field	80.0%	20.0%	100.0%
	Social Sciences	Count	11	3	14
		% within Q19Field	78.6%	21.4%	100.0%
	Arts	Count	4	0	4
		% within Q19Field	100.0%	.0%	100.0%
	Developmental math	Count	2	1	3
		% within Q19Field	66.7%	33.3%	100.0%
	Developmental Reading	Count	2	1	3
		% within Q19Field	66.7%	33.3%	100.0%
	Developmental Writing	Count	1	0	1
		% within Q19Field	100.0%	.0%	100.0%
	Other	Count	4	2	6
		% within Q19Field	66.7%	33.3%	100.0%
	Total	Count	132	29	161
		% within Q19Field	82.0%	18.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	41.344[a]	26	.029

a. 47 cells (87.0%) have expected count less than 5. The minimum expected count is .18.

Significance was set at α=.05, and the chi-square was run. The chi-square value was 41.344, and p=.029, which is less than alpha. Therefore, we reject the null hypothesis and confirm that there is a significant relationship between teaching field and experience teaching in public school.

The final test was a cross tabulation to determine if there is a relationship between experience teaching in a public school and faculty identity as workforce, academic, or both academic and workforce faculty. Table 4.11 shows the results.

Table 4.11. Cross Tabulation Between Public School Experience and Role

			Q1Role			
			Academic	Workforce	Both	Total
Q6K12	None	Count	47	52	37	136
		% within Q6K12	34.6%	38.2%	27.2%	100.0%
	K-12	Count	17	5	7	29
		% within Q6K12	58.6%	17.2%	24.1%	100.0%
	Total	Count	64	57	44	165
		% within Q6K12	38.8%	34.5%	26.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.702[a]	2	.035

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.73.

Significance was set at α=.05, and the test was run. The chi-square value was 6.702, which is less than α. Therefore, we reject the null hypothesis and conclude that there is a relationship between role identification and experience teaching in a public school (K-12).

Survey Question 7

Survey Question 7 asked faculty how often their college presidents and/or their administrators had exposed them to economic issues. “Daily” was coded as 5, “Weekly,”

as 4, “Monthly” as 3, “Once or twice” as 2, and “Never” as 1. Table 4.12 demonstrates the mean results of Survey Question 7, in descending order.

Table 4.12. Discussion of Economic Issues

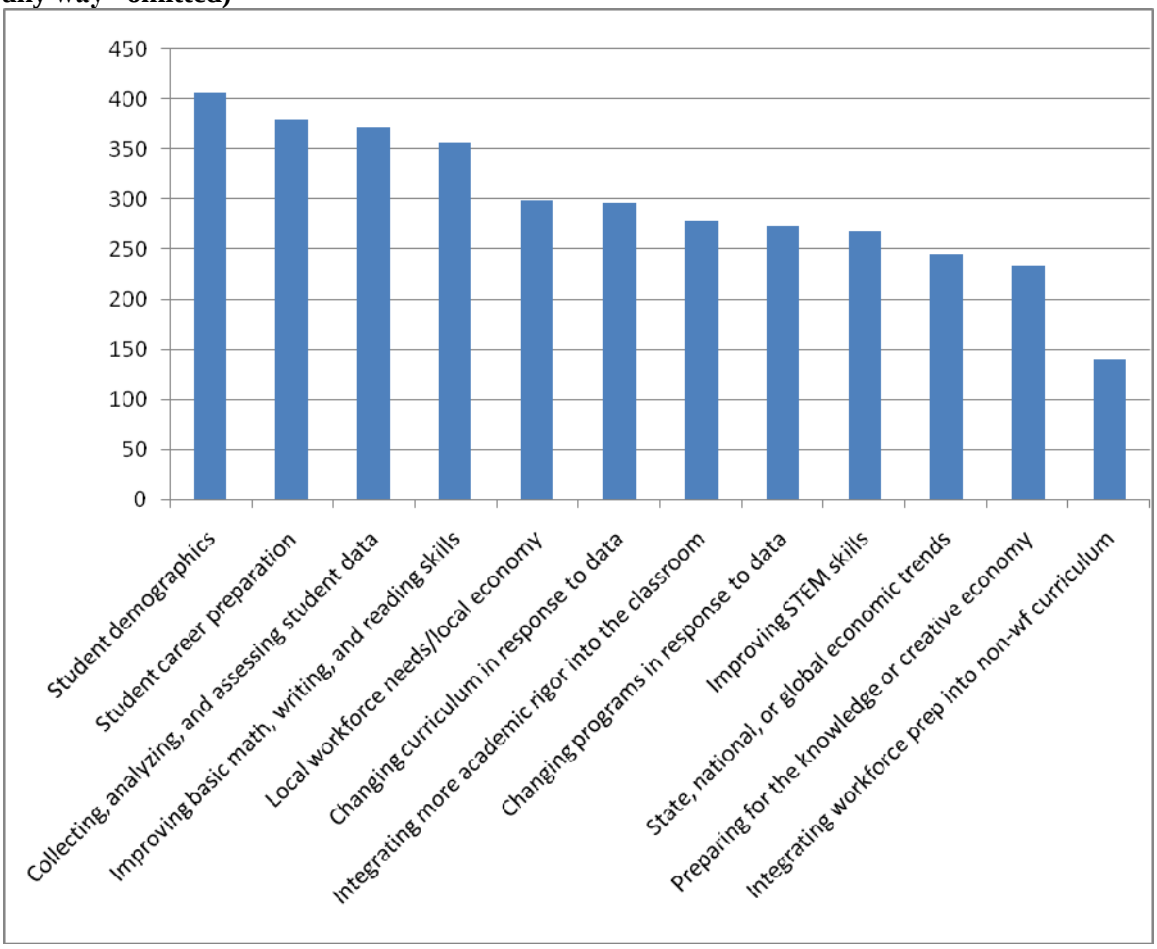
	N	Mean	Std. Deviation
The local community’s economic needs	166	2.00	.696
The state’s economic needs	166	1.86	.678
The nation’s economic needs	163	1.52	.679
The global economic needs	166	1.37	.616

The data show that discussion of “the local community’s economic needs” occurred on average more regularly than discussion of state, national, or global economy. However, all means were 2.0 or less, which shows that on average, college presidents and administrators discussed these issues “once or twice” in the last year or “never.” A Wilks’ Lambda test for repeated measures was run, with α=.05. The Wilks’ Lambda value was .444 and p=.000, showing that the means test was significant.

Survey Question 8

Survey Question 8 asked faculty about their exposure to significant topics over the last year, including how they were exposed to the topics. The question allowed respondents to “choose all that apply,” which resulted in 84 possible variables. A multiple response, descriptive analysis was run to determine the frequencies of the responses. Figure 4.4 shows the topics by frequency.

Figure 4.4. Frequency of Topics Discussed (Duplicated, with "Not introduced to this topic in any way" omitted)



The frequencies in Figure 4.4 are duplicated, indicating the number of selections that the respondents chose per topic. The frequency tallies omitted the seventh option, "Not introduced to this topic in any way." "Student demographics" was the most frequent topic, selected 407 times. "Student career preparation" was the second most frequent topic, selected 380 times. "Integrating workforce preparation into non-workforce curriculum" was the least selected topic, selected 141 times, almost 3 times less likely to have been discussed than the top selection, "Student demographics." The topics were

next reviewed by their information sources. The most frequently discussed topics by information source are listed in Table 4.13.

Table 4.13. Most Frequently Discussed Topics by Source (over 50%)

Topics	Source	Frequency	Percent
Student career preparation	Discussion at a department meeting	107	64.5%
Collecting, analyzing and assessing student data	Discussion at a department meeting	107	64.5%
Student career preparation	Informal conversation among faculty	104	62.7%
Student demographics	Discussion at a department meeting	102	61.4%
Integrating more academic rigor into the curriculum	Informal conversation among faculty	96	57.8%
Changing curriculum in response to student data	Discussion at a department meeting	91	57.8%
Improving basic math, writing, and reading skills	Informal conversation among faculty	90	54.2%
Student demographics	Presentation by a senior administrator or your college president or chancellor	89	53.6%
Improving basic math, writing, and reading skills	Discussion at a department meeting	88	53.0%
Student demographics	Informal conversation among faculty	85	51.2%
Student career preparation	Professional development activity	84	50.6%

The most common information sources were "Discussion at a department meeting" and "Informal conversation among faculty," which occurred four times each out of the top ten results. Most of the top discussion topics recurred by more than one information source. The most common topic was "Student demographics," which occurred four times in the top ten, for a duplicated count of 380. The second most common topic was "student career preparation," which occurred twice in the top ten, for

a duplicated count of 188. These top two selections correspond to the top two selections regardless of information source. However, when accounting for information source, faculty were twice as likely to have heard about student demographics from many sources than they were to have heard about student career preparation.

The least frequently discussed topics by information source are listed in Table 4.14, in ascending order.

Table 4.14. Least frequent topics by source (less than 3%)

Topics	Source	Frequency	Percent
Changing programs in response to student data	Presentation by an outside speaker	1	0.6%
Collecting, analyzing, and assessing student data	Presentation by an outside speaker	1	0.6%
Integrating more academic rigor into the curriculum	Presentation by an outside speaker	3	1.8%
Improving STEM skills	Presentation by an outside speaker	3	1.8%
Student demographics	Presentation by an outside speaker	4	2.4%
Integrating workforce preparation into non-workforce curriculum	Presentation by an outside speaker	5	3.0%
Improving basic math, writing, and reading skills	Presentation by an outside speaker	5	3.0%

Again, some variables recurred. The most obvious result of this test was that the source "Presentation by an outside speaker" was the least frequent means for faculty to learn about these topics. To control for this variable, a second multiple response frequencies test was run coding "presentation by an outside speaker" as a missing variable. The results for the most frequent results were unchanged by this new test because "Presentation by an outside speaker" did not occur in the top 50 percent of the

results. As designed, the least frequent topics did change. Table 4.15 shows the results of this test for the least frequent topics by information source, when controlled for "Presentation by an outside speaker."

Table 4.15. Least Frequent Topics by Source (With "Presentation by outside speaker" omitted)

Topics	Source	Frequency	Percent
Student Demographics	Not introduced to this topic in any way	6	.2%
Collecting, analyzing, and assessing student data	Not introduced to this topic in any way	8	.2%
Student career preparation	Not introduced to this topic in any way	8	.2%
Improving basic math, writing, and reading skills	Not introduced to this topic in any way	10	.3%
Integrating workforce preparation into non-workforce curriculum	Faculty senate or committee conversation	13	.3%
Preparing students for the knowledge or creative economy	Faculty senate or committee conversation	19	.5%
Local workforce needs/the local economy	Not introduced to this topic in any way	21	.5%
State, national, or global economic needs	Faculty senate or committee conversation	21	.5%

These results show that several of the least frequent sources were "not introduced to this topic in any way," which indicates the converse, that these topics were introduced to more faculty. This matches the duplicated frequency results shown in Figure 4.7. The results also show that several of the topics were not discussed in faculty senate or faculty committees. The topics least likely to be discussed in faculty senates or faculty committees were related to workforce integration and economic needs:

- Integrating workforce preparation into non-workforce curriculum
- Preparing students for the knowledge or creative economy
- State, national, or global economic needs

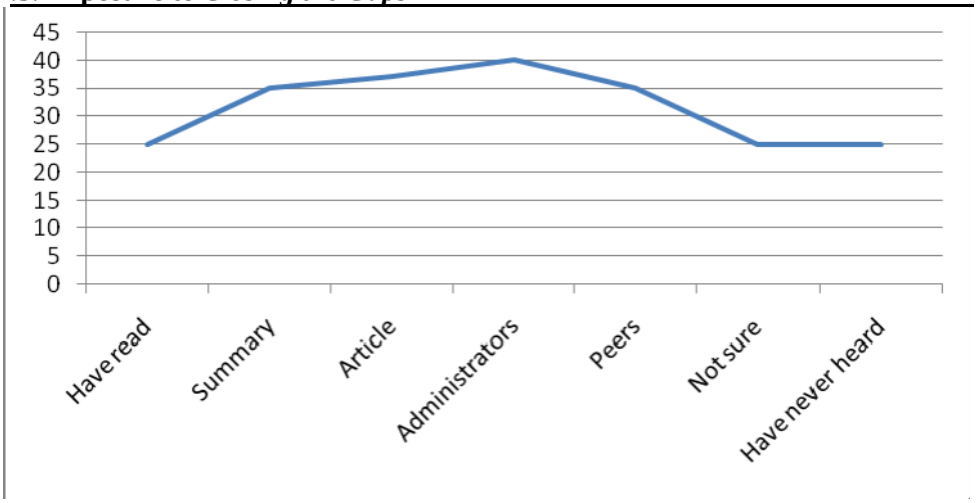
Survey Question 12

Survey Question 12 asked faculty about their exposure to literature that might influence college administrative decisions or that emphasized the value of education in relationship to economic factors. The faculty were asked to "Choose all that apply," so 42 variables were possible. The variables for the question were as follows:

- "I have read this."
- "I have read a summary of this."
- "I have read an article about this."
- "I have heard about this through college administrators."
- "I have heard peers discussing this."
- "I am not sure if I have heard of this."
- "I have never heard of this."

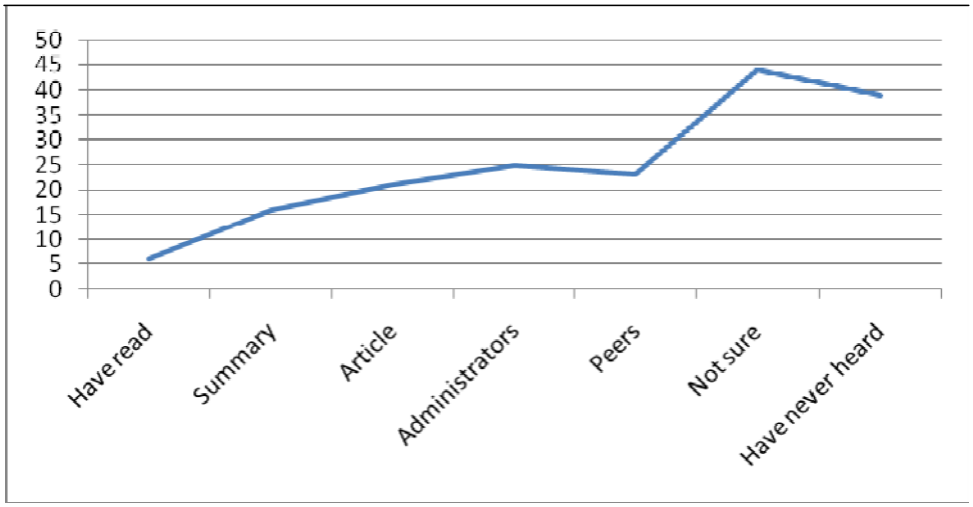
A multiple response, descriptive frequency statistic was run. The responses "I am not sure if I have heard of this" and "I have never heard of this" are unduplicated. The responses indicating familiarity with the literature may be duplicated. Figures 4.5 through 4.11 show the results of the responses for each topic.

Figure 4.5. Exposure to *Closing the Gaps*



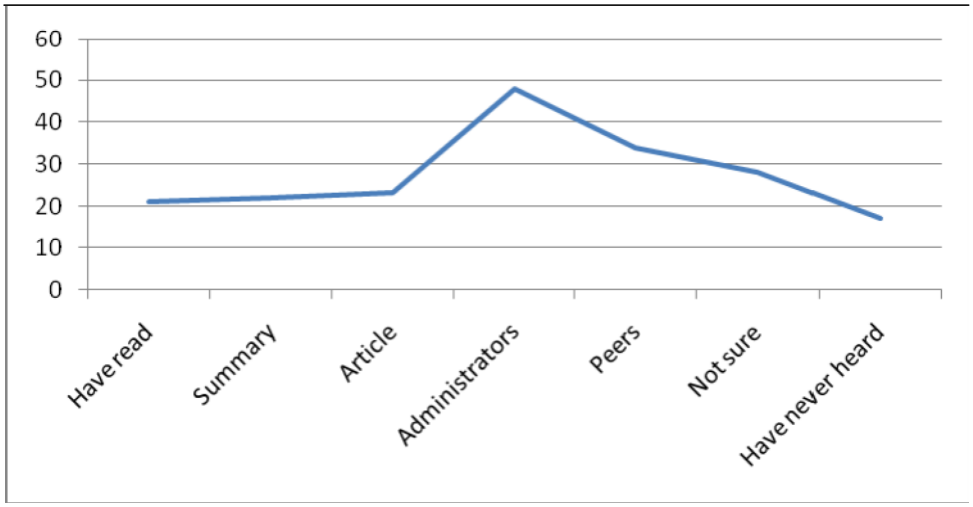
Most faculty familiar with *Closing the Gaps* had heard about it through their college administrators (40 responses). Twenty-five faculty had read it as an original source. Twenty-five faculty also said they had never heard of it, and 25 were not sure that they had heard of it.

Figure 4.6 Exposure to *Texas Compact*



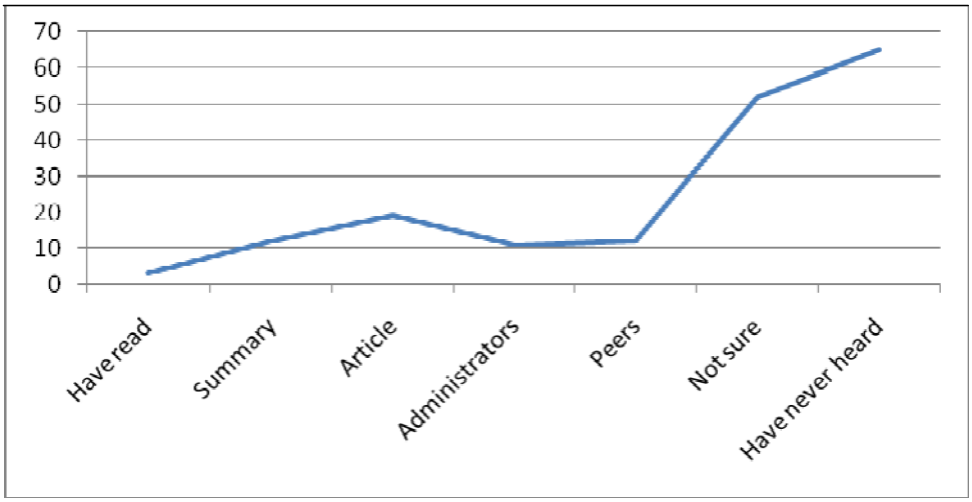
Only six faculty had read the *Texas Compact*. Most had never heard of it (39) or were not sure if they had ever heard of it (44). For those that were familiar with it, most had heard about it through their administrators (25).

Figure 4.7. Exposure to College Readiness Standards



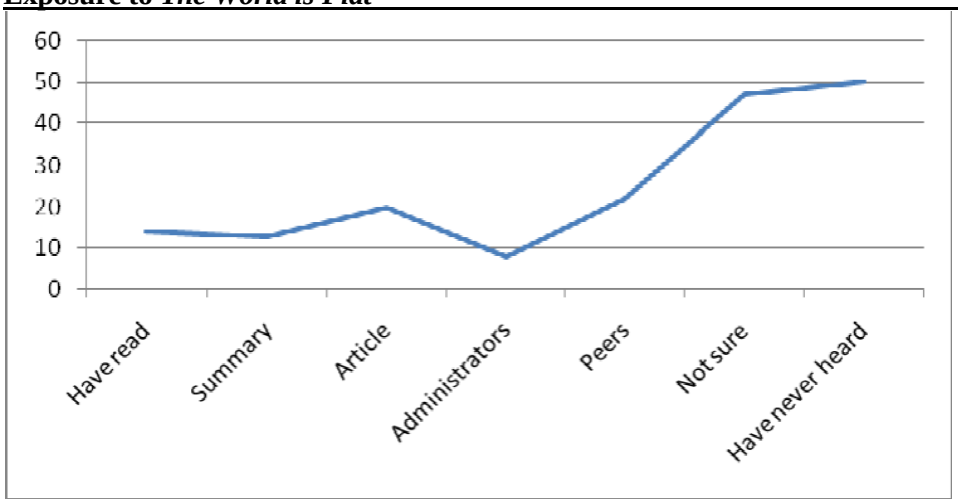
A low number of faculty had never heard of the *College Readiness Standards* (17). Twenty-four were unsure if they had heard of it. Twenty-one faculty members had read it as an original source. A large number of faculty members, 48, had heard about it through their administrators.

Figure 4.8. Exposure to "A Test of Leadership"



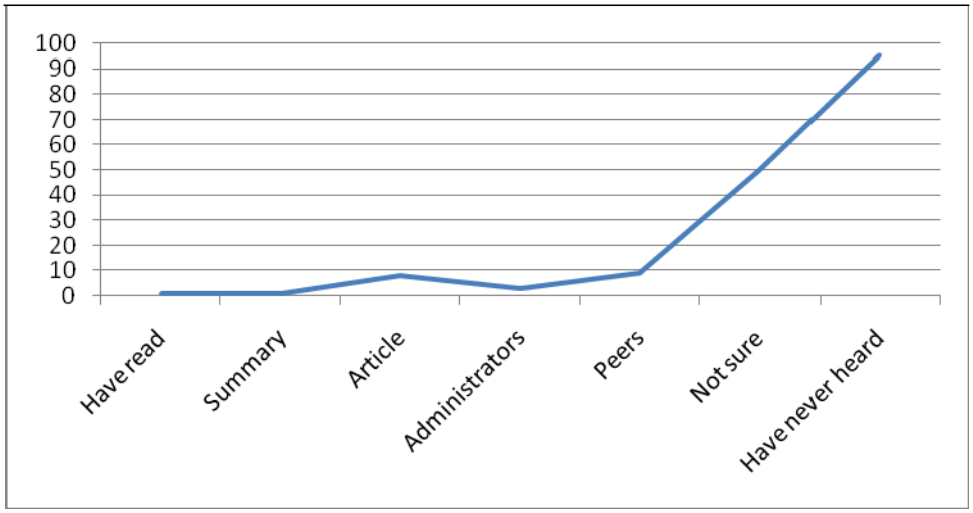
Only three faculty members had read the Secretary of Education's chartered report, "A Test of Leadership." A very large number had never heard of it (65) or were unsure if they had heard of it (52). Exposure to the document by administrators (11) and peers (12) was also minimal. The most exposure to the document was by reading an article about it (19).

Figure 4.9. Exposure to *The World is Flat*



Exposure to the New York Times Bestseller *The World is Flat* was also minimal. Forty-seven were not sure if they had heard of it, and 50 were certain that they had never heard of it. The most common exposure to the book was through peers, 22. Only eight respondents had heard of the book through administrators.

Figure 4.10. Exposure to *The Rise of the Creative Class*



The Rise of the Creative Class was the least distributed among faculty. Ninety-five had never heard of it. Fifty were unsure if they had heard of it. Only one person had read it.

Only 70 faculty acknowledged that they had read any of the six documents. The document they had read the most frequently was *Closing the Gaps*, which had been read by 25 faculty members (15.2 percent of the sample). The *College Readiness Standards* was the document most discussed by administrators, with 48 faculty (28.7 percent of the sample) having heard about this by their college administrators.

Research Question 3

Research Question 3 asks,

(3) What are faculty attitudes toward the college's responses to these pressures? Do faculty support organizational changes to respond to these challenges? Do faculty support uniting the academic and workforce missions?

Survey Questions 10, 11, and 13 were designed to answer this question. A frequency analysis was conducted to determine the mode of each response. Based on the results of the frequency analysis, additional descriptive analyses were run. ANOVA tests were run to analyze some relationships between means.

Survey Question 10

Survey Question 10 asked faculty to respond to specific statements about the community college mission by answering, "Strongly agree (4)," "Agree (3)," "Disagree (2)," and "Strongly disagree (1)." A means test was run to determine the mean responses to this question. Table 4.16 shows the results of this test.

Table 4.16. Faculty Attitudes about the Community College Mission

	N	Sum	Mean	Std. Deviation
I teach to fulfill this community college's mission	161	510	3.17	.691
I am comfortable with this community college's mission	165	517	3.13	.703
I am in full agreement with this community college's mission	163	495	3.04	.753
I am concerned with this community college's mission direction	166	461	2.78	.904
I believe this community college's mission needs more focus on academics	165	401	2.43	.828

I believe this community college's mission needs more focus on workforce development	165	380	2.30	.736
I have opinions about the community college mission that I would like to share with administrators	163	374	2.29	.801
I was involved in the process of developing the community college mission statement	165	344	2.08	.913
My personal teaching mission differs or deviates from the community college mission	163	325	1.99	.733
I do not understand this community college's mission	167	296	1.77	.646

The results show that the faculty most strongly agreed with the statement, "I teach to fulfill the college's mission" (M=3.17). The statement, "I am comfortable with this community college's mission" also demonstrated a high average of agreement (M=3.14). The statement with the lowest level of agreement was "I do not understand this community college's mission" (M=1.77).

A Wilks' Lambda test was run for significance at which α=.05. The value of the Wilks' Lambda statistic was .286, and p=.000, showing that the means test was significant.

To determine the relationship between faculty attitudes about the community college mission and the number of years of experience faculty have had teaching in the community college, ANOVA tests were run on each SQ10 variable, where the SQ10 variables were the dependent variables, and SQ17 (years of experience) was the independent variable. Table 4.17 shows the results of each of these ANOVA tests.

Table 4.17. ANOVA of Mission Responses and Faculty Experience

	Sum of Squares	df	Mean square	F	Sig
I am concerned with this community college's mission direction	1.9838	6	.323	.382	.889
I do not understand this community college's mission	1.586	6	.264	.614	.719
I believe this community college's mission needs more focus on academics	4.385	6	.731	1.061	.389
I believe this community college's mission needs more focus on workforce development	2.694	6	.449	.800	.571
I was involved in the process of developing the community college mission statement	6.783	6	1.130	1.390	.222
I have opinions about the community college mission that I would like to share with administrators	5.273	6	.879	1.356	.236
I am in full agreement with this community college's mission	2.512	6	.419	.726	.630
I teach to fulfill this community college's mission	3.102	6	.517	1.075	.380
I am comfortable with this community college's mission	1.534	6	.256	.506	.803
My personal teaching mission differs or deviates from the community college mission	3.627	6	.604	1.115	.356

Significance was set for α=.05, and the ANOVA tests were run for each variable. On each test, $p > .05$. Therefore, we fail to reject the null hypotheses in each case and determine there is no significance between the faculty's responses to the statements about mission and their years of experience teaching in the community college.

Considering the difference between age and experience, additional ANOVA tests were run to determine the significance between the faculty responses to mission and their ages. The results of these ANOVA tests are shown in table 4.18.

Table 4.18. ANOVA of Mission Responses and Faculty Age

	Sum of Squares	df	Mean square	F	Sig
I am concerned with this community college's mission direction	5.179	5	1.036	1.263	.283
I do not understand this community college's mission	2.047	5	.409	.980	.432
I believe this community college's mission needs more focus on academics	5.696	5	1.139	1.716	.134
I believe this community college's mission needs more focus on workforce development	1.184	5	.237	.415	.838
I was involved in the process of developing the community college mission statement	4.950	5	.990	1.200	.312
I have opinions about the community college mission that I would like to share with administrators	2.575	5	.515	.777	.568
I am in full agreement with this community college's mission	2.792	5	.558	.984	.430
I teach to fulfill this community college's mission	2.008	5	.402	.815	.540
I am comfortable with this community college's mission	1.815	5	.363	.733	.600
My personal teaching mission differs or deviates from the community college mission	4.795	5	.959	1.795	.117

Significance was set for α=.05, and the ANOVA tests were run for each variable. On each test, p > .05. Therefore, we fail to reject the null hypotheses in each case and determine there is no significance between the faculty's responses to the statements about mission and their ages.

One more set of ANOVA tests were run, this time to test the responses to the mission statements and the faculty's chosen roles (SQ1). The results of these tests are shown in Table 4.19.

Table 4.19. ANOVA of Mission Responses and Faculty Role

	Sum of Squares	df	Mean square	F	Sig
I am concerned with this community college's mission direction	3.087	2	1.544	1.910	.151
I do not understand this community college's mission	.309	2	.155	.364	.696
I believe this community college's mission needs more focus on academics	10.540	2	5.270	8.341	.000
I believe this community college's mission needs more focus on workforce development	1.705	2	.853	1.577	.210
I was involved in the process of developing the community college mission statement	3.377	2	1.689	2.025	.135
I have opinions about the community college mission that I would like to share with administrators	4.150	2	2.075	3.307	.039
I am in full agreement with this community college's mission	1.635	2	.817	1.459	.236
I teach to fulfill this community college's mission	2.325	2	1.162	2.462	.089
I am comfortable with this	1.532	2	.766	1.542	.217

community college's mission					
My personal teaching mission differs or deviates from the community college mission	2.780	2	1.390	2.607	.077

Again, significance was set at $\alpha = .05$, and the ANOVA tests were run. Two of the ANOVA tests show results in which $p < .05$, so for these tests we reject the null hypothesis and conclude that the responses to these variables are significant in their relationship to the respondents' selection of role. The full ANOVA test for the first variable in which $p < .05$ is shown in Table 4.20.

Table 4.20. ANOVA of "I believe this community college's mission needs more focus on academics" (Variable 3 in SQ10) and Role

Report

	Mean	N	Std. Deviation
Academic	2.73	63	.902
Workforce	2.14	57	.693
Both	2.39	44	.754
Total	2.43	164	.830

ANOVA

	Sum of Squares	Df	Mean Square	F	Sig
Between Groups (Combined)	10.540	2	5.2770	8.341	.000
Within Groups	101.722	161			
Total	112.262	163			

Table 4.20 above shows the ANOVA between the dependent variable "I believe this community college's mission needs more focus on academics," and the independent variable Survey Question 1, asking faculty whether they identify themselves as academic faculty, workforce faculty, or both academic or workforce faculty equally. Significance was set at $\alpha = .05$, and the test was run. The test outcomes show that $p = .000$, so the null hypotheses is rejected, and we can confirm that there is a significant relationship between these variables. The descriptive statistics in the ANOVA show that the mean response for faculty who identified as academic faculty was 2.73, which was significantly higher than the other responses. Therefore, we can conclude that faculty who identify with the academic mission believe the college mission needs more focus on academics.

The ANOVA test for the second variable in which $p < .05$ is shown in Table 4.21.

Table 4.21. ANOVA of "I have opinions about the community college mission that I would like to share with administrators" (Variable 6 in SQ10) and Role

Report

	Mean	N	Std. Deviation
Academic	2.49	63	.821
Workforce	2.16	57	.774
Both	2.17	41	.771
Total	2.29	161	.803

ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups (Combined)	4.150	2	2.075	3.307	.039
Within Groups	99.130	158	.627		
Total	103.280	160			

Table 4.21 above shows the ANOVA between the dependent variable "I have opinions about the community college mission that I would like to share with administrators," and the independent variable Survey Question 1, asking faculty whether they identify themselves as academic faculty, workforce faculty, or both academic or workforce faculty equally. Significance was set at $\alpha = .05$, and the test was run. The test outcomes show that $p = .039$, so the null hypotheses is rejected, and we can confirm that there is a significant relationship between these variables. The descriptive statistics in the ANOVA show that the mean response for faculty who identified as academic faculty was 2.49, which was higher than the other responses. Therefore, we can conclude that faculty who identify with the academic mission have a greater desire to share their opinions with their administrators than those who identify with the workforce mission or the workforce and academic mission equally.

Table 4.22 shows the ANOVA of another variable that was not significant, but which has interesting descriptive results.

Table 4.22. ANOVA of "My personal teaching mission differs or deviates from the community college mission" (Variable 10 in SQ10) and Role

Report

	Mean	N	Std. Deviation
Academic	2.05	63	.792
Workforce	1.82	56	.716
Both	2.14	42	.647
Total	1.99	161	.737

ANOVA

	Sum of Squares	df	Main Square	F	Sig.
Between Groups (Combined)	2.780	2	1.390	2.607	.077
Within Group	84.214	158	.533		
Total	86.994	160			

Table 4.22 above shows the ANOVA between the dependent variable "My personal teaching mission differs or deviates from the community college mission," and the independent variable Survey Question 1, asking faculty whether they identify themselves as academic faculty, workforce faculty, or both academic or workforce faculty equally. Significance was set at $\alpha = .05$, and the test was run. The test outcomes show that $p = .077$, so we fail to reject the null hypothesis and do not confirm that there is a significant relationship between these variables. However, at $p = .077$, the value is less than 10 percent, which is still of note, and the descriptive statistics in the ANOVA show that the mean response for faculty who identified as both academic faculty workforce faculty was higher than the other two responses, at 2.14. Academic faculty were second highest, at 2.05, and workforce faculty were much lower, at 1.82. Therefore, we can consider that faculty who identified equally with both missions were more likely to feel as if their teaching mission deviated from the community college mission.

Survey Question 11

Survey Question 11 asked if faculty would support change initiatives that might integrate workforce and academic missions or increase academic connections to local, national, and global economic needs. The faculty were asked if they would "Strongly

support (4)," "Support (3)," "Oppose (2)," or "Strongly oppose (1)" eight initiatives. Table 4.23 shows the mean responses for Survey Question 11.

Table 4.23. Faculty Support for Change

	N	Mean	Std. Deviation
Integrating the academic and workforce programs of the college	162	3.15	.606
Team teaching with a faculty member in another discipline who prepares students for academic transfer	162	3.09	.746
Team teaching with a faculty member in another discipline who prepares students for the workforce	162	3.03	.768
Traveling to another country to teach for one semester	161	3.02	.806
Team teaching with a representative from a local business or industry	162	3.01	.650
Teaching in a cohort model with several faculty members from disciplines across the college	159	2.99	.742
Team teaching with a representative from a college in another country	162	2.91	.676
Teaching college classes to high school students	163	2.88	.773

Most faculty supported the change initiatives. The first suggestion, "Integrating the academic and workforce programs of the college," received the highest support, with a mean of 3.15. The lowest support was still above the median, as an average score of 2.88 was given to the suggestion for "Teaching college classes to high school students." Again, a Wilks' Lambda test for repeated measures was run, with α=.05. The Wilks' Lambda value was .841, and p=.000, showing that the means test was significant.

To determine the relationship between faculty support for change initiatives and their years of teaching experience, ANOVA tests were run on each SQ11 variable, where

the SQ11 variables were the dependent variables, and SQ17 (years of experience) was the independent variable. Table 4.24 shows the results of each of these ANOVA tests.

Table 4.24. ANOVA of Faculty Support for Change Initiatives and Years of Experience

	Sum of Squares	df	Mean square	F	Sig
Integrating the academic and workforce programs of the college	2.242	6	.374	.993	.432
Team teaching with a faculty member in another discipline who prepares students for academic transfer	3.172	6	.529	.933	.473
Team teaching with a faculty member in another discipline who prepares students for the workforce	2.610	6	.435	.719	.635
Teaching in a cohort model with several faculty members from disciplines across the college	2.902	6	.484	.862	.525
Teaching college classes to high school students	6.650	6	1.108	1.870	.089
Team teaching with a representative from a local business or industry	1.171	6	.195	.455	.841
Team teaching with a representative from a college in another country	2.484	6	.414	.900	.496
Traveling to another country to teach for one semester	2.003	6	.334	.506	.803

Significance was set for α=.05, and the ANOVA tests were run for each variable. For each test, $p > .05$. Therefore, we fail to reject the null hypotheses in these cases and determine there is no significance between the faculty's support for or opposition of these change initiatives and their years of experience.

Considering the difference between age and experience, additional ANOVA tests were run to determine the significance between the faculty support for or opposition to

change initiatives and their ages. The results of these ANOVA tests are shown in table 4.25.

Table 4.25. ANOVA of Support for Change Initiatives and Faculty Age

	Sum of Squares	df	Mean square	F	Sig
Integrating the academic and workforce programs of the college	3.739	5	.748	2.093	.069
Team teaching with a faculty member in another discipline who prepares students for academic transfer	3.000	5	.600	1.047	.393
Team teaching with a faculty member in another discipline who prepares students for the workforce	2.120	5	.424	.691	.631
Teaching in a cohort model with several faculty members from disciplines across the college	1.185	5	.237	.409	.842
Teaching college classes to high school students	6.685	5	1.337	2.257	.052
Team teaching with a representative from a local business or industry	2.921	5	.584	1.378	.236
Team teaching with a representative from a college in another country	3.513	5	.703	1.551	.177
Traveling to another country to teach for one semester	5.329	5	1.066	1.672	.145

Significance was set for $\alpha=.05$, and the ANOVA tests were run for each variable. On 7 out of 8 tests, $p > .05$. Therefore, we fail to reject the null hypotheses in these cases and determine there is no significance between the faculty's support for or opposition of these change initiatives and their ages.

On one variable, "Teaching college classes to high school students," $p=.052$, which is effectively .05 and therefore $p=\alpha$. For this variable, we reject the null hypothesis

and conclude there is some significance between the years of faculty experience and the

support for teaching college classes to high school students. Table 4.26 shows the ANOVA test for this variable.

Table 4.26. ANOVA of "Teaching college classes to high school students" (Variable 15 in SQ11) and Faculty Age

Report

	Mean	N	Std. Deviation
Less than 30	2.50	6	.837
31-40	2.91	22	.868
41-50	3.07	41	.755
51-60	2.87	69	.705
61-70	2.68	19	.885
Greater than 70	1.00	1	

ANOVA

	Sum of Squares	df	Main Square	F	Sig.
Between Groups (Combined)	6.685	5	1.337	2.257	.052
Within Groups	90.030	152	.592		
Total	96.715	157			

Table 4.26 above shows the ANOVA between the dependent variable "Teaching college classes to high school students," and the independent variable Survey Question 20, faculty age. Significance was set at $\alpha = .05$, and the test was run. The test outcomes show that $p = .052$, so the null hypotheses is rejected, and we can confirm that there is a significant relationship between these variables. The descriptive statistics in the ANOVA show that faculty in the mid-range ages (30-40, 41-50, and 51-60) support teaching college classes to high school students on average more than the youngest faculty or the oldest faculty.

One more set of ANOVA tests were run, this time to test the responses to the support for or opposition of change initiatives and the faculty's chosen roles (SQ1). The results of these tests are shown in Table 4.27.

Table 4.27. ANOVA of Support for Change Initiatives and Faculty Role

	Sum of Squares	df	Mean square	F	Sig
Integrating the academic and workforce programs of the college	1.411	2	.705	1.944	.147
Team teaching with a faculty member in another discipline who prepares students for academic transfer	3.014	2	1.507	2.759	.066
Team teaching with a faculty member in another discipline who prepares students for the workforce	1.802	2	.901	1.536	.219
Teaching in a cohort model with several faculty members from disciplines across the college	1.014	2	.507	.919	.401
Teaching college classes to high school students	.103	2	.051	.085	.918
Team teaching with a representative from a local business or industry	1.040	2	.520	1.238	.293
Team teaching with a representative from a college in another country	.575	2	.288	.629	.535
Traveling to another country to teach for one semester	8.719	2	4.359	7.292	.001

Significance was set for α=.05, and the ANOVA tests were run for each variable. On 7 out of 8 tests, $p > .05$. Therefore, we fail to reject the null hypotheses in these cases and determine there is no significance between the faculty's support for or opposition of these change initiatives and their identification with workforce, academic, or equally workforce and academic roles.

On one variable, "Traveling to another country to teach for one semester," p=.001, which is less than alpha. For this variable, we reject the null hypothesis and

conclude significance exists between the willingness to travel to another country to teach for one semester and identification with the workforce role, the academic role, or both roles equally. Table 4.28 shows the ANOVA test for this variable.

Table 4.28. ANOVA of "Traveling to another country to teach for one semester" (Variable 8 in SQ11) and Faculty Role

Report

	Mean	N	Std. Deviation
Academic	3.19	62	.721
Workforce	2.69	55	.836
Both	3.17	42	.762
Total	3.01	159	.803

ANOVA

	Sum of Squares	df	Main Square	F	Sig.
Between Groups (Combined)	8.719	2	4.359	7.292	.001
Within Groups	93.256	156	.598		
Total	101.975	158			

Table 4.28 above shows the ANOVA between the dependent variable "Traveling to another country to teach for one semester," and the independent variable Survey Question 1, faculty role. Significance was set at $\alpha = .05$, and the test was run. The test outcomes show that $p = .001$, so the null hypotheses is rejected, and we can confirm that there is a significant relationship between these variables. The descriptive statistics in the ANOVA show that the mean for faculty who identify as workforce faculty is significantly lower than the mean for faculty who identify as academic faculty or who identify equally as academic and workforce faculty. Therefore, we can conclude that workforce faculty are less inclined to support initiatives encouraging foreign teaching

exchanges than either academic faculty or faculty who identify with both workforce and academic missions.

Survey Question 13

Survey Question 13 asked faculty members to respond to statements quoted directly from or paraphrased from educational literature. The literature sources were not identified in the survey. The choices for faculty were, "I agree firmly (6)," "I agree (5)," "I am neutral (4)," "I disagree (3)," "I disagree firmly (2)," and "I have never thought of this topic (1)." Table 4.29 shows the means for each of the options in Survey Question 13.

Table 4.29. Opinions on Statements about Education

	N	Mean	Std. Deviation
Faculty need to develop new ways to build student abilities in science and math	158	4.92	.955
Quality preparation always prepares students for the world of work	160	4.46	1.191
Faculty need to assert their responsibilities for student learning, even if opposing the college's mission	160	4.39	1.219
Community colleges should invest in the arts to build the community economy	159	4.16	1.206
Texas community colleges bear the brunt of Closing the Gaps requirements	157	4.15	1.640
The college's economic behaviors contradict faculty values	160	4.05	1.283
Students will be shortchanged if the educational system does not change to meet the needs of the flat world	158	3.83	1.656
All students should want to transfer to four-year colleges	160	3.17	.998
Employers—not students—are the true customers of the community college	160	3.09	1.021

The mean responses hovered near "neutral." The strongest favorable response was recorded for the opinion that "Faculty need to develop new ways to build student abilities in science and math." The least favorable response was recorded for the opinion that "Employers—not students—are the true customers of the community college." Again, a Wilks' Lambda test for repeated measures was run, at which α=.05. The value of Wilks' Lambda was .230, and p=.000, showing that the means is significant.

Qualitative Responses

The survey included an option for comments. The comment question read, "Please share any comments you may have about the academic and workforce college missions." Twenty-six faculty members answered this question, and of those, one faculty member wrote "none," a second wrote "none at this time," and a third left it blank. Those responses were excluded. Also excluded were one faculty member who was a full-time counselor without teaching duties and an adjunct faculty member. While these faculty members have valuable opinions, this study was designed to study full-time teaching faculty only. Therefore, 21 responses were deemed valid, which was 12.6 percent of the sample of 167.

The responses were coded for attitude, not subject matter. Responses could receive multiple codes. The primary codes that emerged were as follows:

- S = Supportive. Faculty offered opinions supporting the college and/or the college mission.
- O = Oppositional. Faculty offered opinions opposing the college and/or the college mission.

- N = Neutral. Faculty did not demonstrate any attitude in their responses.

- T = Tangential. Faculty offered comments that were unrelated to the survey question.

Secondary codes were developed for additional differentiation:

- OM = Oppositional to college mission. Faculty offered opinions opposed to the college mission.
- OO = Oppositional to college operations. Faculty offered opinions opposed to the college operations.
- E = Emphatic. Faculty opinions were offered with emphasis.
- H = Hesitant. Faculty opinions were offered with hesitation.
- I = Informational (or Instructional). Faculty offered information to define their survey responses or to instruct the researcher.

Supportive

Seven of the responses were coded "S." Three were direct, simple statements: "I support the mission of the college," "They (academic and workforce) should be congruent and work for common goals," and "They should be integrated."

Four "S" responses were also coded "I." These responses included additional information to explain the supportive statements. One respondent explained that the workforce and academic missions "work in tandem" and then further explained that his or her discipline of Speech is one of few that "transcends into both university transfer and workforce." Another clarified that "practical learning experiences combined with academics is the best way to learn as a professional."

The other two "S" and "I' statements addressed broad themes with instructional tones. One addressed "the needs of all students…to obtain transfer credits, degrees, certificates, career training, personal enrichment, and workforce skills." Workforce and academics "complement and enhance" each other to meet those needs. The last statement also discussed student populations, explaining the mission of the college to assist those transitioning from high school and those seeking job skills: "the community college must meet the needs of this diverse student population, as well as the needs of the employers within the community."

Oppositional

Oppositional responses were oppositional either to academic and workforce integration or to their colleges' operation. The word "oppositional" was selected instead of "critical" because the tone included some dissatisfaction but not always a critique. Subcodes of "OM" for opposition to the college mission, and "OO" for opposition to college operations were used for additional differentiation of oppositional responses. Ten responses were coded "O."

Two faculty members were oppositional to the college mission and were coded "OM." One faculty member said, "Seriously question the workforce mission, or at least I'd like to get a clear picture of what it is." Another said, "Sometimes the workforce program gets the brunt of the college's money at the expense of academic transfer programs." This second response was coded "Oppositional" because of its critical language "brunt" and "at the expense of."

Two responses were coded "OM" plus "I" because they used their critique as a means for teaching about their opinions. One respondent considered his or her job "to

open my students' minds to a life of learning – not just to get them into a specific job." Another explained that academic and workforce missions "are targeted at different student populations, and these two directions serve the community in markedly different ways."

Three responses were coded "OM" plus "E" because they were emphatic in their critique. One complained that the academic mission is forgotten about in his or her district. This response was coded "E" because of the negative language: "We are considered, especially by the district office, to be nothing but step-children." Another said, "the community college must NOT abandon the academic model for the business model." "NOT" was capitalized in the original comment. A third "OM" + "E" said that he or she would prefer to see more academic rigor in the core classes and complained that students "are NOT prepared for college level work." Again, the "NOT" was capitalized in the original comment.

One faculty member was coded "OO," questioning his or her college's mission fulfillment: "We do not really strive to fulfill the mission in reality, only on paper. No emphasis on continuing education to assist members of the community." A second faculty member was coded "OO" + "E" because of the added emphasis to the critique:

> The mission statement is not fully implemented by this college. The mission statement is introduced with a vague platitude claiming that this college 'empowers people and transforms communities.' This statement is empty. Anecdotally I have learned that many students are actually embarrassed to be attending this college.

A third faculty member was coded "OO" + "H." The critique is almost apologetic: "While open enrollment is commendable on many levels, institutional monetary concerns

sometimes allow/encourage students without adequate skills or preparation to take courses in which they are unlikely to be successful."

Both Supportive and Oppositional

One response was coded as both "S" and "O". The faculty member offered support for a comprehensive community college mission and then critiqued his or her college's operation:

> I believe that not all individuals should aspire to 4-year degree programs, and that part of being a good faculty member is to give students the alternative options. That is not entirely consistent with my college's mission. In fact, it may be seen by some as discouraging people from getting an education, but these people may actually be worried about money and the "bottom line." I think it is merciful.

Tangential

Three responses were considered "Tangential" to the comment question. One response was coded as "T" plus "I." This respondent used the comment either to discuss his or her preferred literature or to inform the researcher that a source was missing from Survey Question 11. The book recommended was *Practical Magic,* by Roueche, Milliron, and Roueche, a practitioner guide for faculty using award-winning community college faculty members' advice and experience as a collection of best practices.

Another response used the space to comment on the consequence of reduced social security benefits for faculty whose colleges do not contribute to the social security system. A third used the space to comment that GED students would be better served if taught by developmental education faculty. This respondent blamed barriers for student access on regulations by his or her college's registrar and on policies by the Texas Higher Education Coordinating Board.

Summary

This chapter addressed the findings from the Mission Survey conducted in Spring 2008. The survey gathered data from 167 full-time faculty members from community colleges across Texas. The faculty members were from many disciplines, although a large number hailed from health sciences. They were from many ages and ranges of experience. Their responses were coded and analyzed in SPSS. Descriptive analyses, including cross-tabulation and Chi-Squares, were run, plus means tests and ANOVAs. A qualitative analysis provided additional data. The results of these data are analyzed in Chapter 5.

CHAPTER 5

RESULTS, RECOMMENDATIONS, AND CONCLUSION

Results Analysis and Summary

This study examined the macro-level effects of external pressures of the 21st century economy at the micro-level of full-time faculty at Texas community colleges. Alfred and Carter (2000) said, "Today's prevailing market forces place intense pressure on community colleges that faculty and administrators in yesterday's institutions could not have imagined or dealt with" (p. 1). These authors could not have predicted that within the decade the pressures would swell to include a deepening recession, higher demand on community colleges to provide solutions to unemployment through training and retraining, and public and political bodies asking community colleges do this with dwindling resources.

Little research to date has shown how faculty respond to these political, organizational, and administrative pressures. Little research has focused on how faculty respond to calls that their students may be the solution to the nation's economic challenges—if the students are talented, skilled, and employable. This research study measured to what extent the faculty are willing to make changes to meet demands on the college, what opinions faculty have about their colleges' mission, and whether or not faculty identify with being workforce or academic faculty or both. The following

analyses review the findings from the survey in an attempt to shed light on these faculty attitudes.

Research Question 1

Research Question 1 read as follows:

(1) What do community college faculty members consider the dominant mission of the community college?

Survey Question 1 asked, "Which of the following statements most applies to you?" The majority of survey respondents identified with teaching students for academic preparation, but a large amount identified with teaching students for workforce preparation, and a large number identified with teaching students for both academic and workforce preparation. Combined, more faculty identified with being workforce faculty or both workforce and academic than academic alone.

A large number of the respondents were nursing faculty, and it was not surprising that they identified with teaching students for workforce preparation. The extensive growth of nursing programs at the nation's community colleges has occurred in response to community demand. Nursing programs are full and have waiting lists. The faculty in them are very aware of the community's expectations, not in the least because they teach the workforce on the line of the community's physical health. They are aware also of their occupation's global reach as foreign nurses are hired to meet the nursing demand (Buerhaus, 2008; Buerhaus, Donelan, Ulrich, DesRoches, & Dittus, 2007).

It is perhaps more surprising that some English faculty considered themselves equally part of the workforce and academic mission. One-third of the total English

faculty respondents said, “I teach academic and workforce preparation equally.” English

is the poster-child of the liberal arts disciplines, and English faculty have a reputation for being opposed to the workforce mission. However, in this research, the English faculty were more inclined to identify with workforce and academic roles equally than any of the other traditionally academic subjects.

Mathematics faculty responses were surprising, as well. Mathematics is a discipline often referred to alongside the science, technology, and engineering subjects, collectively referred to as STEM. Mathematics is integral to the applied sciences. One might expect that mathematics faculty would feel attuned to this relationship between their discipline and the sciences that put people to work. However, zero mathematics faculty affiliated with a workforce role, and only one out of 11 affiliated with workforce and academic roles equally.

Social sciences faculty were weighted toward the academic role, but this was in keeping with the traditional expectation. Social sciences are less applicable to immediate work readiness than English and mathematics. The results of Survey Question 1 indicate that lines are blurring between the roles of academic and workforce faculty. Stereotypes about specific disciplines' attitudes toward the transfer mission or career readiness mission are not supported in reality.

The results of Survey Question 2 demonstrate that faculty clearly support and value integrating community issues into their classes. The strongest response by faculty was that they “discuss the community” with their students. However, is discussing the community an active enough integration to prepare students for entering the community workforce upon completion? Three other options, “service learning,” “field trips,” and

"research within the community," are active processes by which students can engage

directly with the community. At least one-third of the faculty surveyed did engage their students with the community through these means.

The negative responses were less than one might expect. Less than 20 percent of the respondents did not integrate community issues into their classrooms at all, and the primary reason was that the curriculum was unrelated, not that their classes were held in a time or location that would prevent community interaction and dialogue. This could be heartening to administrative personnel who struggle with course scheduling or who worry that logistics constrict the community mission. On the other hand, one would hope that all disciplines could be made relevant to the "real lives" of students beyond their class studies. Overall, the responses to Survey Question 2 demonstrate that faculty believe the college mission includes serving the community and engaging the students within it, even if just in conversation that links the community to the discipline being taught.

Survey Question 3 asked faculty to select their top two responsibilities in the classroom. Overwhelmingly, the faculty believed that their primary responsibility was "preparing students to think critically and creatively." Creative and critical thinking are espoused as some of the most important skills that students can develop today, providing flexibility in the ever-changing workforce, enabling problem-solving ability, and strengthening the students' capabilities to master more subjects. Creative and critical thinking are skills often linked with academic subjects that do not have immediate or prescriptive application. However, even though the top choice was critical and creative thinking, the selection "integrating students into the academic world" was the third lowest. Therefore, faculty must be preparing students with creative and critical thinking skills with the intent that those skills will be applicable beyond the academic realm.

Academics are not the sole domain for creative and critical thinking. This demonstrates a cross-over within the domains of academe and career fields.

A tension exists between what faculty actually do and what they say they do. The second greatest choice in Survey Question 3 was “preparing students for professional fields.” In contrast, “preparing students for immediately applicable work skills” was the fifth choice, two times less likely to have been selected than "professional fields." Even lower was “meeting the needs of area employers," which was fourth on the list, and “building a strong community economic foundation,” which was the lowest ranked responsibility. These responses demonstrate that faculty are concerned about students' work lives, and they understand that their teaching can have an impact on students’ successes. However, the faculty are most interested in their students’ long range goals, not in their immediate work placement. The faculty look to the future for their students, not for the immediate impact a course or degree can have on their students' economic well being or on the area’s workforce. This finding corresponds to the third highest selection in this question, “preparing students with a desire to learn for life.” Faculty see their mission as providing a long-term impact on their students and believe they are providing a continuous return on their students’ investments in time and effort, which is more important than satisfying immediate needs or providing short-term successes.

Survey Question 9 asked similar questions but directed faculty to reflect on their classroom practices. Again, faculty asserted their responsibility for critical thinking, creative thinking, and preparing students to be lifelong learners. This question differed from Research Question 3 because “critical thinking” and “creative thinking” were discrete variables. Faculty responses indicate that critical thinking was valued more

highly over creative thinking. Faculty also felt responsible for preparing students for changing technology. Again, faculty valued the less measurable skills—encouraging tolerance, appreciating diversity, developing students' unique talents—truly holistic responsibilities. However, the question that was designed to acknowledge this responsibility—"I must foster students' 'soft skills' and personal development"—was valued in the lower third of the responses. Therefore, faculty may understand that they are responsible for student development, but they do not define their role as such. Furthermore, while several of the questions could be defined as "good citizenship," faculty did not value the selection "I must prepare students for global citizenship." Perhaps the word "global" had negative meaning for them, or perhaps "citizenship" did. Regardless, faculty are teaching to support traits that belong to good citizens, but they do not acknowledge their responsibility for doing so.

For Survey Question 9, statements about preparing students for economic success were valued the lowest. Again, faculty valued students' future success, not immediate success upon completion. Preparing students for "lifelong careers" was the most highly ranked question related to job success. Preparing students "as workers that meet the needs of the American economy" was lower. Preparing students "as workers that meet the needs of the global economy" was second to last. Again, perhaps faculty were uncomfortable with or in disagreement with the use of the word "global." "I must prepare students to work for local businesses" also was ranked low. Again, results show that faculty do not feel responsible for students' immediate success in the workplace and they do not show concern for their communities' needs. They feel more responsible for students' long-term growth and individual success.

In summary, the responses to Research Question 1 indicate that faculty believe their primary responsibilities are to prepare students to become strong, creative learners who will continue learning and who will thrive in long term careers. The faculty identify equally with academic and workforce role labels, especially when we take into account that some see themselves fulfilling both functions. However, as "workforce" faculty, even with the high number of nursing faculty that were surveyed, the responsibility to help students toward immediate work success is not ranked highly. More faculty see themselves as teaching for holistic, individual gains for each student, not teaching people who will contribute as part of the larger community.

Research Question 2

Research Question 2 asked,

(2) To what extent are community college faculty aware of the pressures on the college from external forces, including the global market and national and state policies to maintain economic competitiveness through higher education?

Survey Questions 4, 5, 6, 7, 8, and 12 were designed to answer this question. Survey Questions 4, 5, and 6 surveyed faculty experiences teaching in other educational institutions to determine if faculty were influenced by the pressures and requirements of those educational arenas.

Teaching in proprietary schools was not related to the faculty teaching disciplines and did not affect the choice of role. Thirty-two faculty members (20 percent) had taught in proprietary schools; 11 of them were nursing faculty. Because a large number of nursing faculty had identified their role as workforce faculty, the researcher assumed that

there would be a significant relationship between role and experience in the proprietary schools. This was tested in the cross-tabulations for Survey Question 4, but the results showed that there was no significance.

The analysis of Survey Question 5 showed there was significance between teaching discipline and experience in four-year colleges or universities, but not between role and experience. Fifty-five of the faculty (34 percent) had taught in four-year colleges or universities. In business management, English, humanities, mathematics, physical sciences, and psychology, more faculty had taught in four-year colleges than had not. One might assume that faculty with experience in universities would have affiliated more with academics, because universities are assumed to be within the “ivory tower” of elite academia. However, while the faculty who worked in four-year colleges or universities did self-identify as "academic" faculty more than those who did not, selecting "academic" at a rate of 48.2 percent opposed to 33.9 percent of those who did not, the statistics still were not significant. The data are descriptive only, and not statistically significant, so again there is evidence that the lines between what it means to be workforce faculty or academic faculty are blurred.

Survey Question 6 tested faculty experience in public schools, and both faculty field and faculty role were significant in relationship to the K-12 experience. Only faculty in education and mathematics had a higher rate of experience in teaching in public schools than the other faculty. However, almost 60 percent of the faculty who have taught in public schools (17 out of 29) identify themselves as academic faculty, not workforce faculty. An explanation for this could be that mathematics and education faculty are predisposed toward academic over workforce roles. This is an interesting finding in that

mathematics and education fields are both fields that have an impact on students' career readiness. Therefore, even though these faculty may see to it that their students gain work-ready skills, they still identify with an academic role and mission over a workforce role and mission.

Survey Question 7 asked faculty how often their college presidents or administrators had exposed them to economic issues related to higher education. Faculty did not appear to be exposed to many topics beyond their disciplinary requirements. This is in keeping with the research. Hardy and Laanan (2006) believe that faculty most strongly identify with their disciplines and the autonomy granted to them within their disciplines. Research by Grubb (1999) suggests that administrators may perpetuate disciplinary isolation because they hail from academics themselves and may not expect faculty to be exposed to issues broader than their own teaching fields. Overall, faculty, did not hear much about economics and higher education. The faculty gravitated toward local issues; they acknowledged learning some about the local economy, then the state, then the nation, and then the world. Their average response was a two out of five, with two meaning they have heard about economic issues only once or twice in the last year.

Survey Question 8 asked faculty to rank their exposure to relevant topics. Two of the bottom three responses were, "state, national, or global economic trends" and "preparing for the knowledge or creative economy." Local workforce needs and local economy were higher in rank, and "student career preparation" was the second highest. This indicates that faculty are being introduced to economic issues, but the issues are particularly local. It also is possible that economic theories about the knowledge economy, global economy, and creative economy are being discussed in educational

circles that do not extend to the practitioners. It also is possible that, if and when the theories reach the practitioners, they are being dismissed as trendy.

This is evident by the least discussed topic identified in Survey Question 8, “integrating workforce preparation into non-workforce curriculum.” Certainly through *Closing the Gaps*, "A Test of Leadership" (the Spellings report), and many other publications, administrators have been exposed to the thesis that students need to exit college ready to work and that students need to attend at least some college to obtain viable employment. However, the message that all faculty are responsible for helping college students prepare for the working world, regardless of the discipline being taught, and with multiple variations on what that can mean, is not being conveyed as “workforce preparation.” Interestingly, the second most discussed topic was “student career preparation.” Therefore, we can surmise that administrators are discussing workforce preparation with faculty, but using different language. Furthermore, faculty indicated that conversations about economic needs and workforce integration are happening rarely at the faculty level; faculty senates and faculty committees do not address these issues. If administrators are addressing these topics with faculty, they are not becoming embedded in the faculty culture.

Faculty researchers should be pleased to see that “student demographics” is the first topic that faculty hear about in multiple ways. A critique of faculty has been that they do not understand today's students' needs. Faculty also have complained that they do not understand their students (Grubb, 1999). However, addressing student demographics will ensure that faculty better understand their students' unique needs and adjust their teaching accordingly.

Survey Question 12 continued on the theme of Survey Question 8. Faculty were asked to rank their exposure to many pieces of literature or policy papers that would have addressed economic issues relevant to their colleges. The literature varied in popularity and publicity, so one would expect that the responses from faculty would be varied as well. A surprising result is that the faculty do not appear to have read much of the literature at all.

The least read was *The Rise of the Creative Class*, by Richard Florida. Published in 2002, this was a popular socio-economic book, but it was not marketed to educators and did not reach the best sellers list. Its popularity has influenced national economic discussions, and many cities and towns have modeled their growth plans on Florida's theories. The author has appeared at numerous national conferences and has written articles in national magazines such as the *Chronicle of Higher Education* and *The Atlantic.* Because of the book's popularity, it is surprising that only one of the faculty members had read the book. However, it is even more surprising that 145 of them had never heard of it or were unsure if they had heard of it.

The Texas Compact, or the *New Community College Compact with Texas*, is a document written in 2006 by the Texas Association of Community Colleges. It, too, would not have been widely distributed, as it is available on the internet and not in print. Out of the documents and literature queried about in Survey Question 12, the *Compact* was the only document about community colleges only. A policy document that relates to state funding of community colleges, it is being referenced today in priorities for the 81st legislative session (Texas Association of Community Colleges, 2009). Eighty-three faculty members were not sure if they had heard of it or were certain they had never

heard of it. This finding suggests that faculty are not well-versed on how their institutions are funded, or that the funding can change with each legislative session. If faculty are not aware of how their own positions are situated in the economic milieu, they may not be aware of the bigger economic picture within their communities and facing their students.

"A Test of Leadership: Charting the Future of Higher Education" also received low marks for readership or familiarity. This, too, is surprising, less for the readership than for the familiarity. In case faculty did not know of the report by its full name, its nickname was given in the survey question: "(aka the Spellings Commission Report)." This report was commissioned by then Secretary of Education Margaret Spellings, and it spoke clearly about reform to higher education. The report was addressed in many popular education magazines and literature and sparked much debate about its contents, about the members on the commission, and about its impact on higher education. Still, 117 faculty members had never heard of it or were unsure if they had heard of it. Those with familiarity gained that information from articles, mostly. If this is an accurate test case, national policy discussions do not appear to reach the faculty.

Published first in 2005, *The World is Flat* was on the New York Times Bestsellers List for two years, on the Business Week Best Sellers List for at least 22 months, and was revised three times within four years. Thomas Friedman, the author, is a Pulitzer Prize winning journalist and has continued to publish bestsellers about our contemporary global-political state. This book calls the education gap a "dirty little secret" (Friedman, 2005). As the Workforce Strategy Center said,

> The story of how the "flat world" or global economy is reshaping the American marketplace has permeated the educational community. It has become increasingly clear to educators that in the 21st century the recipe for economic

> success depends in large part on the capacity of individuals to become "knowledge workers." (Workforce Strategy Center, 2007)

Yet still, ninety-seven faculty members had never heard of it or were unsure if they had ever heard of it.

The *College Readiness Standards* was a more widely received document. This is surprising since the College Readiness Standards plan was unveiled by the Texas Higher Education Coordinating Board only in 2007 as a result of the Texas Legislature's House Bill 1 and its emphasis on college readiness. In order to ensure that students have a seamless transition from high school to college, and to ensure that both high schools and colleges prepare students for higher academics, critical thinking, soft skills, and employability, vertical teams were created to develop standards for the high school based upon the requirements of college. The team members included community college faculty, which may be why so many community college faculty had heard of the document. That these standards might have a direct impact on the curriculum offered in the colleges could be another reason that the College Readiness Standards were introduced to the faculty. However, the alignment reports are still being written today, and the College Readiness Standards are still a work-in-progress. Only 17 faculty had never heard of them. Twenty-one faculty had read the standards, which were available online at the Texas Higher Education Coordinating Board, and 48 of the faculty had heard about the Standards through their administrators. This document, with its impact on the disciplines and the curriculum is an example of the kind of literature that faculty are exposed to or seek out on their own.

In light of the exposure to the College Readiness Standards, one would expect a large number of faculty to know about the *Closing the Gaps* initiative. Also a Texas Higher Education Coordinating Board initiative, *Closing the Gaps* has an impact on college access programs and community college retention and success programs, because it calls for an increase of 630,000 students enrolled in public or private higher education by 2015 (for a total of 1,650,000 students), and an increase to at least 210,000 students earning bachelor's degrees, associate's degrees, or certificates by 2015. Each community college has had to make a determination about its capacity for growth and seek to meet its growth targets. The main reason for *Closing the Gaps* is that the Texas economy will not be able to survive unless more Texans are well-educated and well-skilled for higher level employment. Because of the long arm of the *Closing the Gaps* initiative, it is surprising that 50 faculty members either had never heard of it or were unsure if they had heard of it. This is more than had never heard of the *College Readiness Standards*, which have been promoted less by the THECB, at least by spring 2008 when this research was conducted. *Closing the Gaps* may not appear to be directly related to the faculty because it does not mention individual disciplines, and this may be one reason that it is not frequently discussed among faculty groups.

In summary, to answer Research Question 2, the faculty do not appear to be exposed to the state, national, and global economic pressures that their community colleges may face. They do not read many books or articles that have broad implications for the entire community college institution. This is not an insinuation that faculty do not read; far from it. As is the assumption about academicians, they most likely prefer to read within their disciplines or about topics that will affect their curriculum. When they are

exposed to information about economic issues, they tend to hear about them from their administrators, not from their colleagues in formal or informal settings.

Still, faculty do hear about the value of career preparation for their students and learn about their student demographics. Thus, the faculty do not fit into the stereotype of the isolated teachers who do not care who is in their classrooms or what their students' futures may be. Perhaps language that references "new" theories such as "knowledge economy," "creative economy," or "global economy" appears unfamiliar to them. Also, perhaps the titles of literature they have been exposed to may be unfamiliar to them, but the information is absorbed. Also of note, is that this analysis does not include the assumption that faculty do not care about these subjects with which they are not familiar. Research Question 2 surveyed awareness, not attitudes. Attitudes were surveyed with Research Question 3.

Research Question 3

Research Question 3 asked,

(3) What are faculty attitudes toward the college's responses to these pressures? Do faculty support organizational changes to respond to these challenges? Do faculty support uniting the academic and workforce missions?

Following Research Question 2, this question tested attitudes with Survey Questions 10, 11, and 13. Survey Question 10 began by testing attitudes about the community college mission. The word "mission" deliberately was not defined, as faculty attitudes toward the mission were deemed most important to these findings regardless of faculty's differing opinions of the mission. The results of the means test show, overall, that faculty supported their community college's mission and that they taught to fulfill

the mission. These results are contradictory to current research that claims faculty are dissatisfied with the direction of community college missions and that "mission" may even be distasteful to faculty (Brewer, 1999; Levin, 2006).

In the Survey Question 10 results, the top three faculty attitudes were positive attitudes. The fourth response does indicate concern about the direction of the community college's mission, but this response is less high. Also interesting is the low response rate to the statement, "I have opinions about the community college mission that I would like to share with administrators." Faculty are satisfied overall with the mission and do not feel as if their opinions need to be heard.

Additional research has shown that faculty are more supportive of the community college mission when they have less teaching experience (Locke & Guglielmino, 2006). However, the results of the ANOVA between experience and mission attitudes did not support this research. In case a distinction should be made between experience and age that had not been made in the Locke and Guglielmino research, statistics were run between age and mission attitudes, but still, the tests were not significant and did not support the research. Age and experience did not alter the faculty members' support for the mission.

Results related to the ANOVA between faculty's self-identified roles (workforce, academic, or equally workforce and academic) were more interesting because they uncovered some unique conflicts that the overall results did not support. While most of the results were not significant, academic faculty strongly supported that the community college's mission needs more focus on academics. Academic faculty were also strong in their statement that they would like to share their opinions with the administrators. These

significant tests suggest that academic faculty may be less satisfied than workforce faculty or faculty who consider themselves equally workforce and academic. They also feel as if they have a voice that needs to be heard.

The researcher also noticed that the mission statement, "my personal teaching mission differs or deviates from the community college mission" was supported the most by faculty who considered themselves to be equally workforce and academic faculty. This was not a significant result, but the means suggest that the "both equally" category of faculty may not feel as if they fit in to the traditional model of the college.

In light of the findings from Research Question 2 that the faculty do not hear very much about integrating the workforce and academic mission, it was interesting that for Survey Question 11, "integrating the academic and workforce programs of the college" was the change initiative that the faculty would support the most. Faculty were willing to team teach with each other, even with faculty who teach in different roles, which supports further their willingness to try new initiatives in favor of supporting workforce and academic integration. The findings for Survey Question 11 were almost all neutral to positive. The lowest response was "teaching college classes to high school students," but even that response had a mean of 2.88, which was above the median of 2.5. The faculty in this sample do not bear out the stereotype that faculty are unwilling to change.

As was the case for Survey Question 10, faculty experience did not affect their responses to the change initiatives. This, too, is in conflict with the research that shows that senior and junior faculty have different response patterns to change. Locke and Gugliemino (2006) found that senior faculty valued change initiatives directly related to

classroom values, but the broad support of the range of change initiatives in Survey Question 11 does not indicate any distinction between senior and junior faculty.

When testing for significance between experience and age, the findings were significant that age mattered in the faculty responses to "teaching college classes to high school students." The median ages were the most supportive, while the youngest ages and oldest ages were the least supportive. There is no evidence to support why this may be the case. We can surmise that older faculty may be less willing to change or perhaps more skeptical of the success of which high school aged students are capable. Younger faculty may also be skeptical of high school aged students' abilities, perhaps being closer in age to the students and therefore more inclined to differentiate between themselves and the students. Younger faculty may also be more inclined to support traditional teaching modes because of expectations of what their professorial duties may be. Additionally, middle-aged faculty may be more accepting of teaching high school students because they have children the same age and know their children's capabilities; they may also look forward to the advantages of dual enrollment programs, both the economic advantages for their families and the intellectual advantages for their children.

Faculty were supportive of change initiatives regardless of their identification as workforce faculty, academic faculty, or both academic and workforce faculty equally. The one exception was to the change initiative "traveling to another country to teach for one semester." Workforce faculty were much less supportive of this initiative than were academic faculty or those who identified equally with academics and workforce. One may assume that faculty who consider themselves academic faculty may affiliate their disciplines with material from other countries—literature, history, science—and therefore

would enjoy teaching in an environment in which their subject matter is close at hand. On the other hand, workforce faculty may not see the connection between their subject matter and the opportunities to teach, to learn, and to live in another country. Although many of the workforce faculty identify with their communities, the global connection to what they do may not be apparent. They may also be practical about taking time away from their communities and families, especially if they have worked in their communities and continue to be connected to them through teaching in hospitals.

Survey Question 13 had a similar result as Survey Question 11; although faculty have not been exposed much to the topics that STEM subjects are vital to students' employment viability, faculty believe that building student abilities in science and math is one of the most important issues facing educators today. They also see that faculty are responsible for finding new ways to teach these subjects. This question further supports faculty interest in integrating workforce and academic preparation; faculty believe that quality education always prepares students for the world of work. Faculty do not differentiate between "work preparation" and "quality education," and they feel responsible for both.

Faculty tended to be neutral or slightly negative towards statements that related to the community college's economic mission. They were neutral about community college responsibilities toward *Closing the Gaps* and did not demonstrate resentment toward the pressures the colleges experience trying to meet the requirements. They were neutral about the statement that "the college's economic behaviors contradict faculty values." They only slightly disagreed with the statement that students would be shortchanged if the educational system does not change to meet the needs of the flat world. These results

show that faculty do not feel engaged in the issues of the economy, nor do they feel challenged by them.

Responses to Survey Question 13 make a statement about faculty identity. Faculty ranked third the statement that "faculty need to assert their responsibilities for student learning, even if opposing the college's mission." Although Survey Question 11 showed that few faculty feel opposed to the college mission, if they did feel at odds with it, they would put their responsibilities toward their students first. Faculty believe they know what is best for the students, over and above the institutional mission or related policies.

One statement that faculty did not identify with is that employers – not students – are the true customers of the community college. The faculty likely would have balked at the statement that the students are the customers, but calling employers the customers was not accepted at all. Faculty have refrained from accepting market-value language to address their work, and this response to the last variable in Survey Question 13 was an example of this.

In summary, in answer to Research Question 3, faculty showed strong support for the comprehensive community college. They support integrating academics and workforce, they believed they are responsible in part for helping students prepare for good careers, and they understand that sciences and mathematics are important areas for teaching and curricular improvements. Most likely, faculty do not consider these to be "economic" issues. They have integrated these responsibilities into their academic activities. Alfred and Carter (2000) recommended that faculty embrace the changing college mission and take responsibility for making change in the classroom –"the point of

contact" with the student (p. 13). This research shows that faculty have done so. Faculty appear to care deeply about their responsibility for students' success.

Qualitative Responses

Faculty comments at the end of the survey corroborated the quantitative survey results. The qualitative responses showed the subtle nature of faculty dissatisfaction. Some faculty were dissatisfied with the idea of a comprehensive community college mission and appeared to support a stronger academic mission. Others were dissatisfied with the way their colleges operationalized the college mission. They believed in what was being pronounced as the goals, but they did not see that their colleges were operating in such a way as to achieve those goals. Some faculty, however, stated clearly their support for their community colleges.

Therefore, an interesting distinction developed: 1) those faculty who support the mission; 2) those faculty who do not support the mission; 3) and those faculty who do support the mission but do not trust their colleges to provide the best leadership in following through with the colleges' promises. Therefore, within the broad claim of mission support, nuanced conflict exists.

Implications and Recommendations

Surveys help others "understand or predict human behavior or conditions" (Alreck & Settle, 2004, p. 3). Surveys help to inform decision-making and to further theoretical research (Alreck & Settle, 2004). This study was designed primarily to do the latter, but the results provide useful information for leadership and management action. A survey cannot "dictate decisions" (Alreck & Settle, 2004, p. 9), but it can contribute to the necessary knowledge for making action decisions (Alreck & Settle, 2004).

This survey was designed to answer questions about the respondents' attitudes, a process that includes three parts: "(1) What the person *knows* or *believes* about the topic, (2) how the person feels about the topic or how it's *valued*, and (3) the likelihood that the individual will take *action* based on the attitude" (Alreck & Settle, 2004, p. 13). The survey for this study is a descriptive survey to describe the characteristics of the sample faculty at one point in time (Mertens, 2005).

Little research to date has examined the impact of the 21st century mission on community college faculty. The responses to this mission survey contribute to the literature about faculty identity and community college leadership. They also contribute to literature of conflict and communication studies, which are traditionally housed in communications schools not schools of higher education.

Faculty Awareness

We have known little about how faculty understand "the larger picture." This research shows that faculty have not been exposed to much of the bigger picture by their college administration or by peers in collegial or informal settings. If exposure is a sign of awareness, faculty do lack awareness.

However, faculty have long range vision for their students. They believe in the power of the individual. Goodlad (1976) identified four goals in institutions of higher education: (1) the goal to provide a national workforce, educated in areas of necessity for national need; (2) the goal to reward students (and ensure they become well-employed) for their efforts; (3) the goal to assist the student-as-individual who seeks personal philosophical knowledge or growth; and (4) the goal to assist academies within the college or university that wish to sustain and grow their recognition as disciplines. The

research in this study shows that faculty gravitate toward goal three: assisting the student-as-individual.

This is a commendable goal. If it is contradictory with administrative goals or community goals, establishing communication patterns that acknowledge the differences could ensure that faculty do not feel at odds with the rest of the institution. Being in conflict does not mean the faculty members must disengage from participating in and contributing to their colleges' success.

However, faculty should be made aware that singular attention to their students' futures could affect the students' abilities to connect the courses with their immediate goals. As the study showed, faculty are not familiar with current research on the economy and the community. Faculty are not accessing this material on their own, and they are not being widely exposed to it through various means at their colleges. For administrative staff and professional development staff to address these issues with faculty, and to encourage faculty to embrace the research about the value of community college to the economy, would give faculty new messages to bring to their students about the immediate value of their education and would help faculty guide students through different stages of their goal attainment.

The predisposition of faculty with K-12 experience toward academics over workforce indicates an area for growth in awareness. As demonstrated by the shift in curriculum requirements via the College Readiness Standards and the increase in enrollments in dual credit, dual enrollment, tech prep programs, and career pathways, the transitions between high school and college are changing and community college faculty need to be aware of what this means for their students. The transitions need to be

seamless to prepare students to respond to greater academic challenges. The transitions also need to be seamless to prepare students to go to college and then successfully enter the workforce with higher value-added, high-growth, and high-paying careers than they would if entering the workforce directly after high school. Faculty with public school experience are integral to the conversations that need to be held between high school systems and community college systems, and ensuring that the faculty are well-versed in both academic and workforce needs – regardless of their disposition to prefer one over the other – will enable the transitions to be smoother.

Overall, faculty would be well-served to read more about the global knowledge economy, particularly local/global pipelines, P-16 initiatives, career pathways and related policy documents. Reading circles and other professional development opportunities could ensure that faculty, staff, and administrators are familiar with new ideas and exploring how these ideas impact the college.

Faculty should be encouraged to familiarize themselves with *Closing the Gaps* and the research behind it, as it is a policy document that has not gone away. Texas is now a majority-minority state (U.S. Census Bureau News, 2005), and demographic studies have demonstrated that educators will need to work harder to increase the numbers of highly educated Hispanic students. Furthermore, colleges now face the "U-shaped pattern of employment growth" (Jacobs & Dougherty, 2006, p. 60) and must challenge themselves to train students for middle-income, living-wage jobs. The goals behind *Closing the Gaps* are to prepare students for the higher quintile jobs, ones that require at least some college education, and to increase the minority participation in higher education. This study shows that faculty are concerned with their students'

demographics, and they understand the value of teaching tolerance and encouraging students to learn in diverse environments. They also want to prepare students for careers. The goals behind *Closing the Gaps* match these faculty attitudes, so faculty should be introduced in greater numbers to the *Closing the Gaps* initiative.

Brewer (1999) found that only one in ten faculty claimed to be strongly supportive of their college's mission. This study contradicts that survey. Faculty support their colleges' mission to prepare students for careers, to prepare students to be lifelong learners, and to prepare students to think critically and creatively. Faculty will support workforce opportunities for their students and their own role in preparing students for work, regardless of their own discipline affiliation, age, or experience. Faculty are also willing to change to do more to fulfill the college's mission. However, faculty should increase their awareness that preparing students for the world of work does not mean sacrificing preparing students for academic excellence, and it does not require turning the college into a corporate entity. Faculty should remember that the language they use for career preparedness or student success may differ from the language of the administration, but the goal of the comprehensive community college and individual student success is shared.

Finally, faculty would be well served to become aware of global economic theories. These theories are behind the books *The World is Flat* and *The Rise in the Creative Class*, which not many faculty have read. While not identical, and not the sole source of information for faculty to learn, these books both discuss the value of independent communities to the economic and social success of the world. Boundaries between what is local, national, and global are changing, and American students will not

be as successful as their counterparts in other nations if they are not introduced to the themes of the global economy. The themes are broad and the reality of the global economy differs for each individual, but the consequences are real; our students are increasingly from immigrant families and will bring their global knowledge to their classes, and they will also seek work in fields that span national borders. Awareness of community needs means, by necessity, recognizing that one's community is larger than the local city or town. Faculty can guide students to this knowledge of the larger world as they prepare students to be lifelong learners.

Faculty Identity

The faculty who identify equally with workforce and academic roles may feel uneasy or insecure in their position within the organization. However, all faculty support change initiatives that would integrate workforce preparation and academic preparation, and if these changes occur, those faculty who may be out in front of the rest will soon feel more at ease.

Faculty are willing to change. This is clear from the responses to Survey Question 11. What this research shows is that faculty are no longer clearly divided philosophically by old notions of academic mission and vocational mission. They may be divided organizationally, but they are accustomed to identifying professionally beyond the organizational climate of the community college. Unlike the claim that faculty have a "corporatized identity" (Levin, Kater, & Wagner, 2006, p. 13), the faculty in this study do not approve of corporatization but rather of meeting student needs.

Tompkins and Cheney (1985) explain that members identify with an organization's mission when they "choose the alternative that best promotes the

perceived interests of that organization" (p. 194). The faculty members in this study clearly expressed willingness to accept all of the change initiatives presented to them. The administrative personnel did not exhibit overt influence on faculty decision making, but the faculty were willing to make decisions of their own about what the community college could do to prepare students for the workforce in a global economy. This indicates that faculty do indeed identify with the community colleges' comprehensive mission.

Levin (2006) would critique this by explaining that faculty are contradictory. He believes that faculty express unity with the institution's missions and actions "even if they are opposed to some institutional actions" (p. 80) because they have become corporatized just like the community college. However, the faculty in this study show no signs of a lack of self-awareness. They may lack awareness of certain current topics relevant to the community college, but they make clear statements about what their roles are and what they will and will not support in the college. They may be contradictory, but a more accurate description would be that they compromise to fulfill their own mission within the unique and complex college environment. They are not dissatisfied, and they are not disengaged.

Only some are in dissent with the mission. Kassing (1998) explained that the most constructive means for expressing dissatisfaction with one's work is by voicing dissent. This may be the explanation for the greater number of oppositional comments than supportive comments in the qualitative portion of the survey. Faculty used this space to voice their dissent in their own words and with their own emphases. Furthermore, faculty were asked if they wished to share their opinions about the mission with their

administrators, and most declined. Those who did wish to voice their opinions with their administrators were academic faculty mostly. The academic faculty may feel less engaged than the workforce faculty or the faculty who identify equally with the workforce and academic roles. The implication of this is that other faculty, staff, administrators, and even students may need to make themselves aware of the changes that are occurring to the traditional academic mission and praise the importance of that role, which is not in danger of going away, while at the same time encouraging academic faculty to learn more about how their disciplines are important to community needs.

Faculty are willing to work beyond the boundaries of their departments, team-teaching with colleagues from other roles and disciplines, and team teaching with members of the community. They are willing, also, to team teach with members of the global community, which would create a natural transition for students to learn that their individual goals have an impact on the global knowledge economy and that the local community is not isolated from the world community. Moss-Kanter (1995) emphasizes the value of creating linkages between local populations and the global economy; developing thinkers and workers who can make this link will yield enormous educational and economic benefits.

The fact that faculty are least willing to accept teaching college classes to high school students deserves some attention, even though faculty were generally supportive. Early college programs and dual enrollment programs are gaining attention as means for student success and also for economic benefits to the community. Finding ways to appeal to faculty to teach in dual enrollment programs and to support such programs, plus emphasizing the success of career pathways, would be a means to meeting demands for

knowledge workers at the policy level and to meeting individual student needs. Overall, however, stereotypes that faculty are unwilling to change should be dismissed, as faculty are willing to take risks in order to fulfill their responsibilities to their students.

Administrative Awareness

Gleazer (1980) said an aware organization is "alert, utilizing its senses to probe for meaning in environmental signals and cues. ... [It is] anticipatory" (p. 15-16). If administrators hope faculty would anticipate the economic needs of the community, they are mistaken. Faculty will think of the individual student first. Administrators should continue to build their awareness of what faculty value the most in the comprehensive mission and learn to work with faculty knowledge about student success. They should also add to their knowledge of how to approach potential conflicts about the college mission. Goodlad (1976) says that administrators are responsible for conflict resolution and for maintaining an atmosphere of "continuity" within the educational institution (p. 5).

The research of this study shows that faculty are willing to change, support some level of mission integration, and support their colleges' missions. The qualitative responses show the nuances of disillusionment that the quantitative responses do not. Faculty do feel supportive, but tensions still exist, and faculty do not unite in defining the source of their conflict.

Allen (2003) says conflict in colleges and universities is rooted in insecurity. In light of the extensive external pressures colleges face, external turbulence creates a feeling of unpredictability in the organizations, and faculty distrust the administration as a result. In some cases, Allen finds, administrators are insecure about granting power to

the staff or faculty, and thus they withhold information from them, increasing the conflict.

Goodlad believes that not all conflicts should be resolved because the nature of goal conflict is inherent to the success of higher education: "universities [and colleges] thrive on uncertainty. If everything were known or knowable, there would be no uncertainty -- and no conflict. Consensus, however, implies certainty. That is why consensus may be more dangerous to universities than conflict" (p. 91). Goodlad believes the role of administrators is to create environments in which uncertainty is safe.

West (2006) refers to Clark when he explains that the resolution of conflict "requires an infrastructure of governance and administration in which opposing interests and commitments are mixed and balanced (p. 194). Clark calls this a "strengthened steering core" -- a decrease in top down management in favor of consent-driven decision making. Administrators should seek to "[marry] academic and managerial values" so that conflicting goals are balanced and the interdependent parties can trust in the structure of the community college to resolve conflicts.

Allen (2003) supports the theory that administrative communication and empowerment of all constituents can ease the pain of conflict and tension. Therefore, administrators should seek to become more aware of the conflicts faculty feel in their roles and in their relationships to the mission. Administrators should seek to learn the roots of faculty insecurities. For example, because faculty respond negatively to certain phraseology, administrators should choose their language to ensure faculty will not “turn off” from the ideas. Such efforts “reduce the distance” between academic and workforce goals (Grubb, 1999, p. 355). Finally, administrators should seek to determine what

amount of and type of conflict is generative and constructive, and what amount or type of conflict needs to be resolved.

Increased Communication and Climate Change

Pettitt and Ayers (2002) state that leadership is essential to "promote healthy tensions" (p. 105) in higher education institutions, particularly community colleges. Citing Blake and Mouton, the authors assert that individuals manage conflict, but leaders help to create the *climate* in which the conflict will arise and be managed.

The climate of communication in the organization is cited as particularly important; good leaders must build a culture of trust, and provide an atmosphere in which people believe they will be listened to and in which their ideas will contribute to decision-making within the organization. Barsky and Wood (2005) recommend multiple strategies to college administration to encourage a climate of addressing conflict instead of avoiding it.

West (2006) says that conflict is--and has been--the "lifeblood" of universities because teachers and scholars "pride themselves on being uncompromising" (184). He offers the recommendation that administrators and leaders should establish an organizational structure that can withstand the inevitable conflicts. Roueche, Richardson, Neal, and Roueche (2008) assert that colleges with creative organizational structures are best able to avoid internal conflict that arises from external changes. Changes to the workforce and academic missions, and the increasing integration of them to meet current economic needs, will facilitate new and creative organizational structures.

As continued pressures on the community college increase changes to the organization, administrators and faculty should be engaged equally in the meaning of

those changes to the college mission. The changes should be discussed in language that reminds all constituents that the changes are for the larger community—a contribution to change at the local, state, national, and global levels— and also that these broad changes are realized only through the support of each individual. The climate of the college should reflect trust in administrators to recognize what is important to the community, and it should reflect trust in the faculty to support their students as individuals within the community. As Roueche, Ely, and Roueche (2001) said,

> It is only when everyone understands how each operation contributes to the overall achievement of the college and has a role in assessing how well these activities contribute to the overall achievement that the whole will become more than the sum of its parts (p. 113).

Limitations

When this study began in 2007, the United States had a thriving economy. Today, we are in one of the worst financial crises since the 1930s (Aversa, 2009). A limitation of the study is its snapshot in time; faculty's awareness of economic issues may be more pronounced today, and tensions may be greater as the pressures intensify for faculty to guide the newly unemployed into new career fields.

Another limitation is that only full-time faculty with teaching responsibilities were surveyed for their responses. Full-time faculty assert the dominant culture for all college faculty (Bayer & Braxton, 1998). They most often have the attention of administrators and control over faculty governance. Therefore, adjunct faculty and full-time faculty without teaching responsibilities were not included in this study.

This study was limited to Texas community colleges. The results for faculty attitudes and awareness in Texas may differ from those in other regions where the

economic pressures may be more or less intense. They may also differ in community colleges from regions with strong faculty unions and union-negotiated contracts, as unions create a formal, defined relationship between faculty and administrators. What is generalizable for this state may not be generalizable for the nation.

Directions for Future Research

This research survey was a broad look into faculty attitudes and awareness of the community college mission. More areas for research arise from the results of this study.

Longitudinal Study of Community College Faculty Attitudes and Awareness of the Economic Mission

This study provided look at faculty attitudes across Texas. As the economy shifts and as educational demands change, faculty attitudes and awareness of their responsibilities toward the economic mission may change, as well. A repeat of this study in the future could provide interesting data about faculty assumptions of professional identity.

Study into Faculty Attitudes and Student Success

More research into faculty attitudes could arise from this study. Faculty attitudes toward their students—preparing them for the future instead of short-term goals, for example—could add to retention research. Students may find it difficult to apply what they are learning to their immediate needs and may think that school is unrealistic. Additionally, more studies—perhaps qualitative studies—could parse the differences between opposition to the mission versus opposition to the way the college is acting to serve the mission.

Study into Community College Faculty Priorities

Research Question 7 began an interesting line of questioning about faculty interests. Community college faculty are not required to be practicing researchers in their fields, but it is assumed that faculty are most interested in learning about their own disciplines instead of broader issues affecting community colleges or the economy. Further research into what faculty choose to read would be helpful to increase awareness about faculty interests and priorities.

Additional Study into Faculty Role Identity

How faculty identify with workforce, academic, or both workforce and academic roles may be born out in organizational reality within the colleges, or they may not. An examination of faculty identity in comparison to institutional organizational distinctions – or despite organizational distinctions – could help educators understand where boundaries interfere with or assist with the community college mission.

Study into the Discourse of the Community College Mission

Faculty respond differently to questions depending upon the language that is being used for the topics. Faculty negatively react to "corporate" language, and often economic pressures are relayed in business terminology. A discourse analysis of language used in community colleges about the community college mission, and how faculty respond to certain connotations of the language, could yield interesting findings about faculty attitudes.

Communications Studies within Community Colleges

Wilmot and Hocker assert that "the consequences of conflict are due to the way the conflict is managed" (Cited in Oetzel & Ting-Toomey, 2006, p. xi). Moving conflict

communication studies into the field of higher education institutions--or into the research conducted by educational administration academic departments--will do a service not only to the body of conflict research but will provide a public service of contribution to the higher education community. Current communication theory is beginning to call for a critical review of managerial conflict style (Nicotera & Dorsey, 2006). Further research into the successes and failures of conflict management within community colleges will help to unveil more causes of faculty tensions that can interrupt or negatively affect the college's success.

Conclusion

This study began out of a realization that more information needs to be uncovered about the perceived rift between the academic transfer mission and the workforce preparation mission. The research in this study demonstrates that the rift does not exist in a simple duality. Academic and workforce faculty disagree in only a few areas, and it is possible that disagreement could be a form of healthy, generative conflict and not a form of disagreement that will stall innovation.

The major findings in this study were:

- Lines are blurred between the roles of academic and workforce faculty. Stereotypes about specific disciplines' attitudes toward the transfer mission or career readiness mission are not supported in reality.
- Faculty see their mission as providing a long-term impact on their students, which is more important to them than satisfying immediate needs or providing short-term successes.

- Faculty may understand that they are responsible for student development and student work readiness, but they do not define their role as such. Faculty do not differentiate between "work preparation" and "quality education," and they feel responsible for both.
- Faculty are satisfied overall with the comprehensive community college mission and do not feel as if their opinions need to be heard more than they already are.
- Faculty are willing to change.

Community colleges face rapid transformation in their communities and in their mission in the 21st century. This research study has been conducted during one such era of change. The current economic situation is much different than the economic situation when this study began. However, despite the state of the current economy, some things are reinforced. The state of manufacturing continues to decline, and creative and knowledge workers are expected to be the workers in the most demand in this faltering economy (Florida, 2009). As the unemployed seek community college programs to retrain themselves with marketable skills, pressures on community colleges have not changed with the economic downturn; they have intensified ("Weighing the two-year option."). Community college faculty are at the juncture of student learning and student growth at a time when two-year colleges are considered the salvation of America's economic failures.

It is no longer practical to view the community college mission as either an academic/transfer mission or a workforce/vocational mission. Integration is occurring in programs already, and more will be occurring in the near future. Mission transformation

is inevitable. The overarching message of educational theorists, economists, and policy experts is that community colleges face indisputable and multiple pressures to transform their institutions and meet the needs of multiple constituencies. The message of organizational theorists is that tension will occur as pressures mount. How faculty respond to these changes from external forces, how they respond to pressure from within the college, and how they respond to their students at the same time, makes a difference in the outcomes of each college and each student. Community colleges and their constituents can ease the transition and continue to strive toward excellence if all stakeholders are aware of the multiple pressures on and opinions of the community college faculty.

APPENDIX A: PISA EXAM RESULTS (2003)

Average mathematics performance of Fourth-graders, eighth-graders, and 15-year olds for all participating countries, relative to the U.S. average (2003)

	TIMSS		PISA
Country	4th grade	8th grade	15-year-olds
Australia	▼	●	▲
Austria	†	†	▲
Belgium[1]	†	†	▲
Canada	†	†	▲
Czech Republic	†	†	▲
Denmark	†	†	▲
England	▲	*	*
Finland	†	†	▲
France	†	†	▲
Germany	†	†	▲
Iceland	†	†	▲
Ireland	†	†	▲
Japan	▲	▲	▲
Korea, Republic of	†	▲	▲
Luxembourg	†	†	▲
Netherlands	▲	▲	▲
New Zealand	▼	●	▲
Norway	▼	▼	▲
Poland	†	†	▲
Slovak Republic	†	●	▲
Switzerland	†	†	▲
Hungary	▲	▲	
Scotland	▼	●	*
Spain	†	†	●
Sweden	†	●	●
Greece	†	†	▼
Italy	▼	▼	▼
Mexico	†	†	▼
Portugal	†	†	▼
Turkey	†	†	▼

† Not applicable. Did not participate in this assessment.
[1] Only Flemish Belgium participated in TIMSS 2003. Scores for Flemish Belgium were higher than the United States at grades 4 and 8 in TIMSS 2003.
*Scotland and England participated separately in TIMSS 2003 at both grade levels but jointly as the United Kingdom (including Northern Ireland) in PISA 2003. However, England did not meet response rate standards for grade 8 in TIMSS 2003 or for PISA 2003, so no comparisons are reported with the United States for England for grade 8 in TIMSS 2003 or for the United Kingdom for PISA 2003.

NOTE: Countries are ordered according to their performance relative to the United States in PISA and then alphabetized, except for England and Scotland, which did not participate in PISA separately.

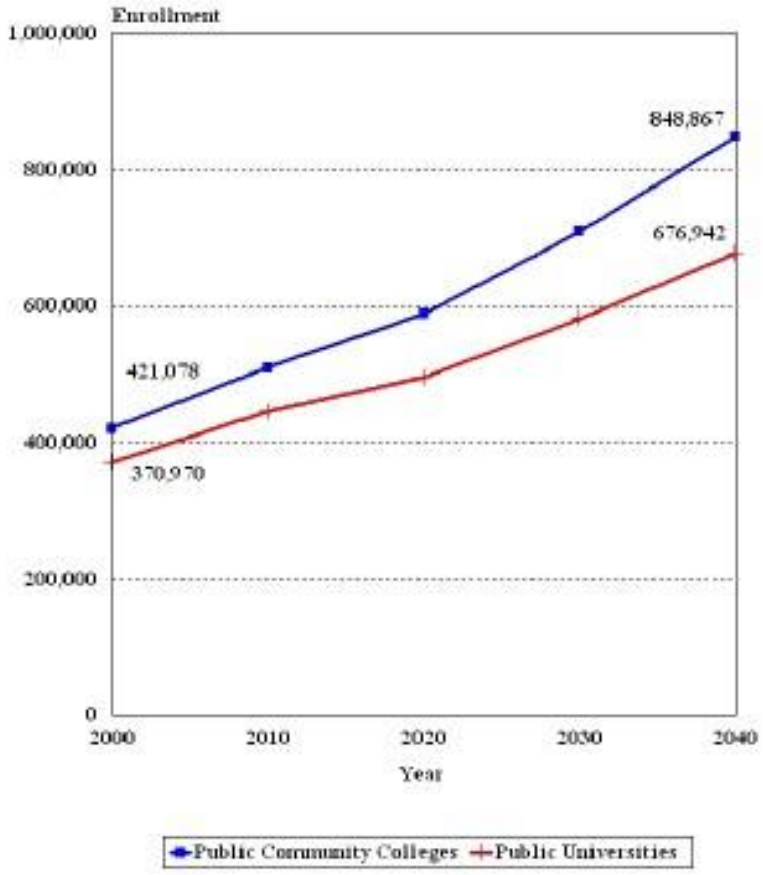
SOURCE: Organization for Economic Cooperation and Development (OECD) Program for International Student Assessment (PISA) 2003, and International Association for the Evaluation of Educational Achievement (IEA) Trends in International Mathematics and Science Survey (TIMSS) 2003.

Key:
▲ Average score is higher than U.S. average score
● Average score is not measurably different from U.S. average score
▼ Average score is lower than U.S. average score

(National Center for Education Statistics, 2004, p. 6)

APPENDIX F: PROJECTED COMMUNITY COLLEGE ENROLLMENT GROWTH, 2000-2040

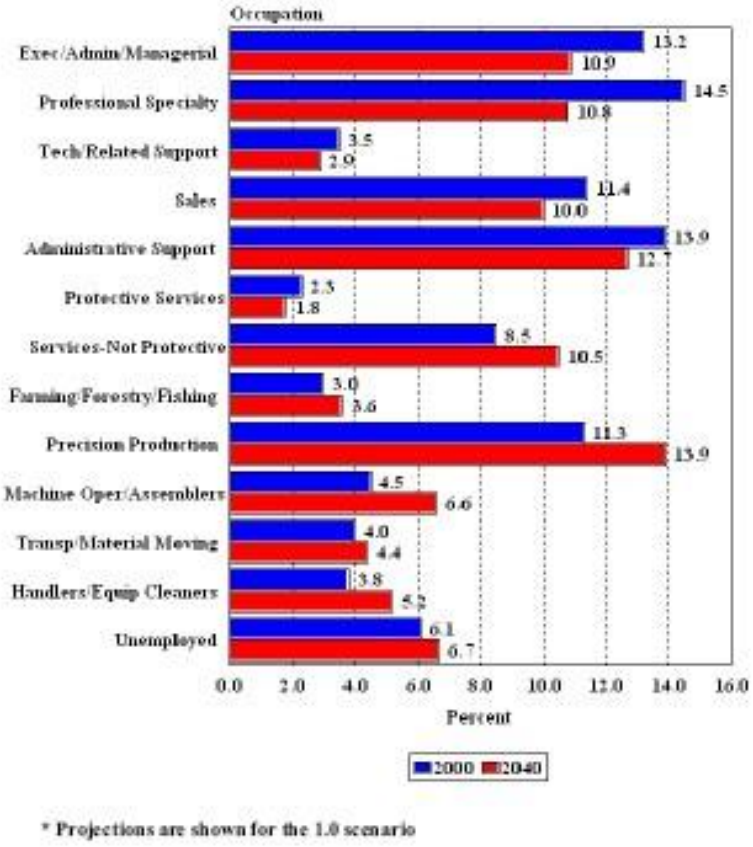
Enrollment in Texas Public Community Colleges and Universities in 2000 and Projections to 2040 (1.0 Scenario)



(Murdock, et al., 2002, p. 54)

APPENDIX C: CHANGES IN LABOR FORCE BY OCCUPATION FROM 2000 TO 2040

Percent of Texas Labor Force by Educational Attainment in 2000 and Projections for 2040

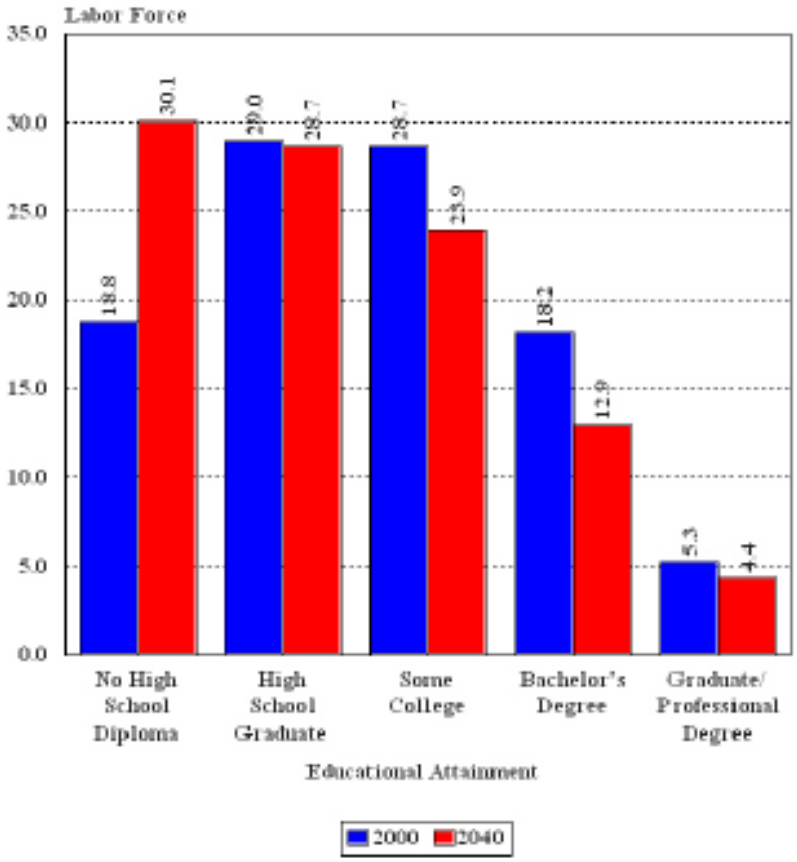


* Projections are shown for the 1.0 scenario

(Murdock, et. al., 2002, p. 50)

APPENDIX D: LABOR FORCE BY EDUCATIONAL ATTAINMENT

Percent of Texas Labor Force by Educational Attainment in 2000 and Projections for 2040



*** Projections are shown for the 1.0 scenario**

(Murdock, et al., 2000, p. 49)

APPENDIX E: THE MISSION SURVEY

You are about to take the survey entitled "Academy, Economy, and the Community College Faculty: A Mission Survey." The study is being conducted by Melissa Richardson, doctoral student in the Department of Educational Administration, College of Education, The University of Texas at Austin, 1 University Station, D5600, Austin, Texas 78712-0738.

The purpose of this study is to examine community college faculty members' opinions of the community college mission. Your participation in the survey will contribute to a better understanding of community colleges' responses to external pressures on the community college mission, in particular preparing students for sustainable careers in the American economy. We estimate that it will take about 15 minutes of your time to complete the questionnaire. You are free to contact the investigator at the email listed below to discuss the survey.

Risks to participants are considered minimal. There will be no costs for participating, nor will you benefit from participating. Identification numbers associated with email addresses will be kept during the data collection phase for tracking purposes only. A limited number of research team members will have access to the data during data collection. This information will be stripped from the final dataset.

Once the doctoral research is conducted, analyzed, and approved by The University of Texas at Austin, the researcher will be happy to share summarized results with participants and/or participating institutions. You will have the opportunity to request these results at the end of the survey. In addition, you will be provided a bibliography connected to the survey questions, if requested.

Questions marked with an asterisk (*) have been used with permission from the Community College Faculty Survey of Student Engagement (www.ccsse.org).

Your participation in this survey is voluntary. You may decline to answer any question and you have the right to withdraw from participation at any time without penalty. If you wish to withdraw from the study or have any questions, contact the investigator at mrichardson@mail.utexas.edu.

If you have any questions or would like us to email another person for your institution or update your email address, please send an email to mrichardson@mail.utexas.edu. You may also request a hard copy of the survey from the same email address.

This study has been reviewed and approved by The University of Texas at Austin Institutional Review Board. If you have questions about your rights as a study participant, or are dissatisfied at any time with any aspect of this study, you may contact - anonymously, if you wish - the Institutional Review Board by phone at (512) 471-8871 or email at orsc@uts.cc.utexas.edu.

IRB Approval Number: 2007120016

To take the survey online, continue with the arrows to the next page.

Thank you!

1. Which of the following applies to you? (Pick one)

- ◯ I mostly teach students for academic preparation.
- ◯ I mostly teach students for workforce preparation.
- ◯ I teach academic and workforce preparation equally.

2. In which of the following ways do you connect your classes to the community? (Check all that apply)

- ☐ My classes are prevented from community engagement because of their time and location
- ☐ My classes are not related to the community because of the curriculum
- ☐ My classes discuss the community
- ☐ My classes take field trips into the community
- ☐ My classes include research within the community
- ☐ My classes engage in service learning
- ☐ Other (please specify)

3. Out of the following list, which TWO categories do you view as your most important responsibility as a community college instructor? (Pick two only)

- ☐ Providing open access education to all
- ☐ Preparing students for professional careers
- ☐ Preparing students for immediately applicable work skills
- ☐ Leading students to completion of a certificate
- ☐ Leading students to completion of an associates degree
- ☐ Preparing students to transfer to a four-year college or university
- ☐ Preparing students to think critically and creatively
- ☐ Preparing students for the 21st century economy
- ☐ Providing students with reading, writing, and mathematical literacy
- ☐ Integrating students into the academic world
- ☐ Creating in students a desire to learn for life
- ☐ Building a strong community economic foundation
- ☐ Meeting the needs of area employers

4. Have you taught or do you currently teach at a proprietary/for-profit educational institution?

◯ Yes

◯ No

5. Have you taught or do you currently teach at a four-year, baccalaureate-granting institution (other than your community college, if your community college offers baccalaureate degrees)?

◯ Yes

◯ No

6. Have you taught or do you currently teach at a public school (K-12)?

◯ Yes

◯ No

7. How often in the last year have your college's administrators and/or president discussed the following issues with you?

	Never	Once or twice	Monthly	Weekly	Daily
The local community's economic needs	○	○	○	○	○
The state's economic needs	○	○	○	○	○
The nation's economic needs	○	○	○	○	○
The global economic needs	○	○	○	○	○

8. Which of the following have you heard dicussed within the last year, and in what way? (Choose all that apply)

	Presentation by an outside speaker	Faculty professional development activity	Faculty Senate or committee conversation	Presentation by a senior administrator or your college president or chancellor	Discussion at a department meeting	Informal conversation among faculty	Not introduced to this topic in any of these ways.
Student career preparation	☐	☐	☐	☐	☐	☐	☐
Student demographics	☐	☐	☐	☐	☐	☐	☐
Preparing students for the knowledge or creative economy	☐	☐	☐	☐	☐	☐	☐
Local workforce needs/the local economy	☐	☐	☐	☐	☐	☐	☐
State, national, or global economic trends	☐	☐	☐	☐	☐	☐	☐
Improving science, technology, engineering, and math (STEM) skills	☐	☐	☐	☐	☐	☐	☐
Improving basic math, writing, and reading skills	☐	☐	☐	☐	☐	☐	☐
Integrating workforce preparation into non-workforce curriculum	☐	☐	☐	☐	☐	☐	☐
Integrating more academic rigor into the curriculum	☐	☐	☐	☐	☐	☐	☐
Collecting, analyzing, and assessing student data	☐	☐	☐	☐	☐	☐	☐
Changing curriculum in response to student data	☐	☐	☐	☐	☐	☐	☐
Changing programs in response to student data	☐	☐	☐	☐	☐	☐	☐

9. Which of the following are your responsibility in the classroom?

	Strongly agree	Agree	Disagree	Strongly disagree
I must prepare students for critical thinking.	○	○	○	○
I must foster creative thinking in students.	○	○	○	○
I must encourage tolerance among students.	○	○	○	○
I must encourage students to develop their unique talents.	○	○	○	○
I must prepare students to obtain a certificate.	○	○	○	○
I must prepare students to obtain an associate's degree.	○	○	○	○
I must prepare students for transfer to four-year institutions.	○	○	○	○
I must encourage students to appreciate multicultural diversity.	○	○	○	○
I must foster students' "soft skills" and personal development.	○	○	○	○
I must prepare students for changing technology.	○	○	○	○
I must prepare students for global citizenship.	○	○	○	○
I must prepare students for career advancement.	○	○	○	○
I must prepare students for lifelong careers.	○	○	○	○
I must prepare students to work for local businesses.	○	○	○	○
I must encourage students to be lifelong learners.	○	○	○	○
I must prepare students as workers that meet the needs of the American economy.	○	○	○	○
I must prepare students as workers to fit the needs of the global economy.	○	○	○	○

10. To what extent do you agree or disagree with the following statements?

	Strongly agree	Agree	Disagree	Strongly disagree
I am concerned with this community college's mission direction.	○	○	○	○
I do not understand this community college's mission.	○	○	○	○
I believe this community college's mission needs more focus on academics.	○	○	○	○
I believe this community college's mission needs more focus on workforce development.	○	○	○	○
I was involved in the process of developing the community college mission statement.	○	○	○	○
I have opinions about the community college mission that I would like to share with administrators.	○	○	○	○
I am in full agreement with this community college's mission.	○	○	○	○
I teach to fulfill this community college's mission.	○	○	○	○
I am comfortable with this community college's mission.	○	○	○	○
My personal teaching mission differs or deviates from the community college mission.	○	○	○	○

11. How strongly would you support or oppose the following?

	Strongly support	Support	Oppose	Strongly oppose
Integrating the academic and workforce programs of the college	○	○	○	○
Team teaching with a faculty member in another discipline who prepares students for academic transfer	○	○	○	○
Team teaching with a faculty member in another discipline who prepares students for the workforce	○	○	○	○
Teaching in a cohort model with several faculty members from disciplines across the college	○	○	○	○
Teaching college classes to high school students	○	○	○	○
Team teaching with a representative from local business or industry	○	○	○	○
Team teaching with a representative from a college in another country	○	○	○	○
Travelling to another country to teach for one semester	○	○	○	○

12. Please explain your exposure to the following documents. (Choose all that apply)

	I have read this.	I have read a summary of this.	I have read an article about this.	I have heard about this through college administrators.	I have heard peers discussing this.	I am not sure if I have heard of this.	I have never heard of this.
Closing the Gaps	☐	☐	☐	☐	☐	☐	☐
The Texas Compact (by the Texas Association of Community Colleges)	☐	☐	☐	☐	☐	☐	☐
The College Readiness Standards	☐	☐	☐	☐	☐	☐	☐
A Test of Leadership: Charting the Future of U.S. Higher Education (aka The Spellings Commission Report)	☐	☐	☐	☐	☐	☐	☐
The World is Flat, by Thomas Friedman	☐	☐	☐	☐	☐	☐	☐
The Rise of the Creative Class, by Richard Florida	☐	☐	☐	☐	☐	☐	☐

13. What is your opinion of the following statements from education literature?

	I agree firmly.	I agree.	I am neutral.	I disagree.	I disagree firmly.	I have never thought of this topic.
The college's economic behaviors contradict faculty values.	○	○	○	○	○	○
Faculty need to assert their responsibilities for student learning, even if opposing the college's mission.	○	○	○	○	○	○
Employers--not students--are the true customers of the community college.	○	○	○	○	○	○
Texas community colleges bear the brunt of Closing the Gaps requirements.	○	○	○	○	○	○
Faculty need to develop new ways to build student abilities in science and math.	○	○	○	○	○	○
Quality education always prepares students for the world of work.	○	○	○	○	○	○
All students should want to transfer to four-year colleges.	○	○	○	○	○	○
Students will be shortchanged if the educational system does not change to meet the needs of the flat world.	○	○	○	○	○	○
Community colleges should invest in the arts to build the community economy.	○	○	○	○	○	○

14. Which of the following best describes your current position?

- [ ] Full-time Faculty
- [ ] Adjunct Faculty
- [ ] Full time, but split teaching and administrative duties
- [ ] Full time, but split teaching and laboratory or coaching duties

Other (please specify)

15. Where are you employed outside of your college?*

- ◯ Self-employed
- ◯ Other college(s)in teaching position
- ◯ Other college(s) in non-teaching position
- ◯ Full-time non-academic position
- ◯ Part-time non-academic position
- ◯ Work related to my teaching field at this college
- ◯ Not employed elsewhere

16. How many courses do you teach online per year (excluding hybrid courses)?

- ◯ None
- ◯ 1-2
- ◯ 3-4
- ◯ 5-6
- ◯ 7-8
- ◯ 9-10
- ◯ More than 10

17. How many years of community college instructional experience do you have?

- ◯ Less than one
- ◯ 1-5
- ◯ 6-10
- ◯ 11-15
- ◯ 16-20
- ◯ 21-25
- ◯ 26 +

18. How many years of administrative experience do you have?

- ◯ None or less than one
- ◯ 1-5
- ◯ 6-10
- ◯ 11-15
- ◯ 16-20
- ◯ 21-25
- ◯ 26 +

19. What is your dominant teaching field? (Pick one)*

- ◯ Agriculture
- ◯ Architecture & Related Programs (city/urban, community/regional planning, etc.)
- ◯ Biological Sciences/Life Sciences (biology, biochemistry, botany, zoology, etc.)
- ◯ Business Management & Administrative Services (accounting, business admin., marketing, management, real estate, etc.)
- ◯ Communications (advertising, journalism, television/radio, etc.)
- ◯ Computer & Information Sciences
- ◯ Conservation & Renewable Natural Resources (fishing, forestry, wildlife, etc.)
- ◯ Construction Trades (masonry, carpentry, plumbing & pipe fitters, etc.)
- ◯ Education
- ◯ Engineering
- ◯ English Language & Literature/Letters (composition, creative writing, etc.)
- ◯ Foreign Languages & Literatures (French, Spanish, etc.)
- ◯ Health Professions & Related Sciences (nursing, physical therapy, dental, EMT, veterinary, etc.)
- ◯ Law & Legal Studies
- ◯ Liberal Arts & Sciences, General Studies & Humanities
- ◯ Library Science
- ◯ Mathematics
- ◯ Mechanics & Repairers (A/C, heating & refrigeration, electrical/electronic equipment, etc.)
- ◯ Military Technologies
- ◯ Multi/Interdisciplinary Studies (international relations, ecology, environmental studies, etc.)
- ◯ Parks, Recreation, Leisure & Fitness Studies
- ◯ Personal & Miscellaneous Services (gaming & sports, cosmetic, culinary, etc.)
- ◯ Physical Sciences (astronomy, chemistry, geology, physics, etc.)
- ◯ Precision Production Trades (drafting, graphic, precious metal worker, etc.)
- ◯ Protective Services (criminal justice & corrections, fire protection, etc.)
- ◯ Psychology
- ◯ Public Administration & Services (public policy, social work, etc.)
- ◯ Science Technologies (biological technology, nuclear & industrial radiological technology, etc.)
- ◯ Social Sciences & History (anthropology, archeology, economics, geography, history, political science, sociology, etc.)
- ◯ Theology Studies & Religious Vocations (philosophy, ministry, etc.)
- ◯ Transportation & Materials Moving Workers (air, vehicle, & water workers, etc.)
- ◯ Visual & Performing Arts (art, music, theater, dance, etc.)
- ◯ Vocational Home Economics (child care/guidance worker & manager, clothing, apparel, & textile worker, housekeeping, etc.)
- ◯ Developmental Math
- ◯ Developmental Reading
- ◯ Developmental Writing
- ◯ Other Developmental

Other (please specify)

20. What is your age?

- ◯ Younger than 30
- ◯ 31 - 40
- ◯ 41 - 50
- ◯ 51 - 60
- ◯ 61 - 70
- ◯ Older than 70

21. What is your gender?*

- ◯ Female
- ◯ Male

22. What is the highest degree you have earned?*

- ☐ First professional degree (e.g., M.D., D.D.S., J.D., D.V.M.)
- ☐ Doctoral degree (e.g., Ph.D., Ed.D.)
- ☐ Master's degree
- ☐ Bachelor's degree
- ☐ Associate's degree
- ☐ Other

23. What is your citizenship status?*

- ◯ United States citizen, native
- ◯ United States citizen, naturalized
- ◯ Permanent resident of the United States (immigrant visa)
- ◯ Temporary resident of the United States (non-immigrant visa)

24. What is your racial or ethnic identification? (Mark only one)*

- ◯ American Indian or other Native American
- ◯ Asian, Asian American, or Pacific Islander
- ◯ Native Hawaiian
- ◯ Black or African American, Non-Hispanic
- ◯ White, Non-Hispanic
- ◯ Hispanic, Latino, Spanish

Other (specify if you wish)

25. Please name your community college and its zip code.

26. Please share any opinions you may have about the academic and workforce college missons.

27. Would you like to receive a summary of the results of this survey or a bibliography supporting the questions asked? If so, please leave your contact information in the box below. Your contact information will not be shared.

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VITA

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